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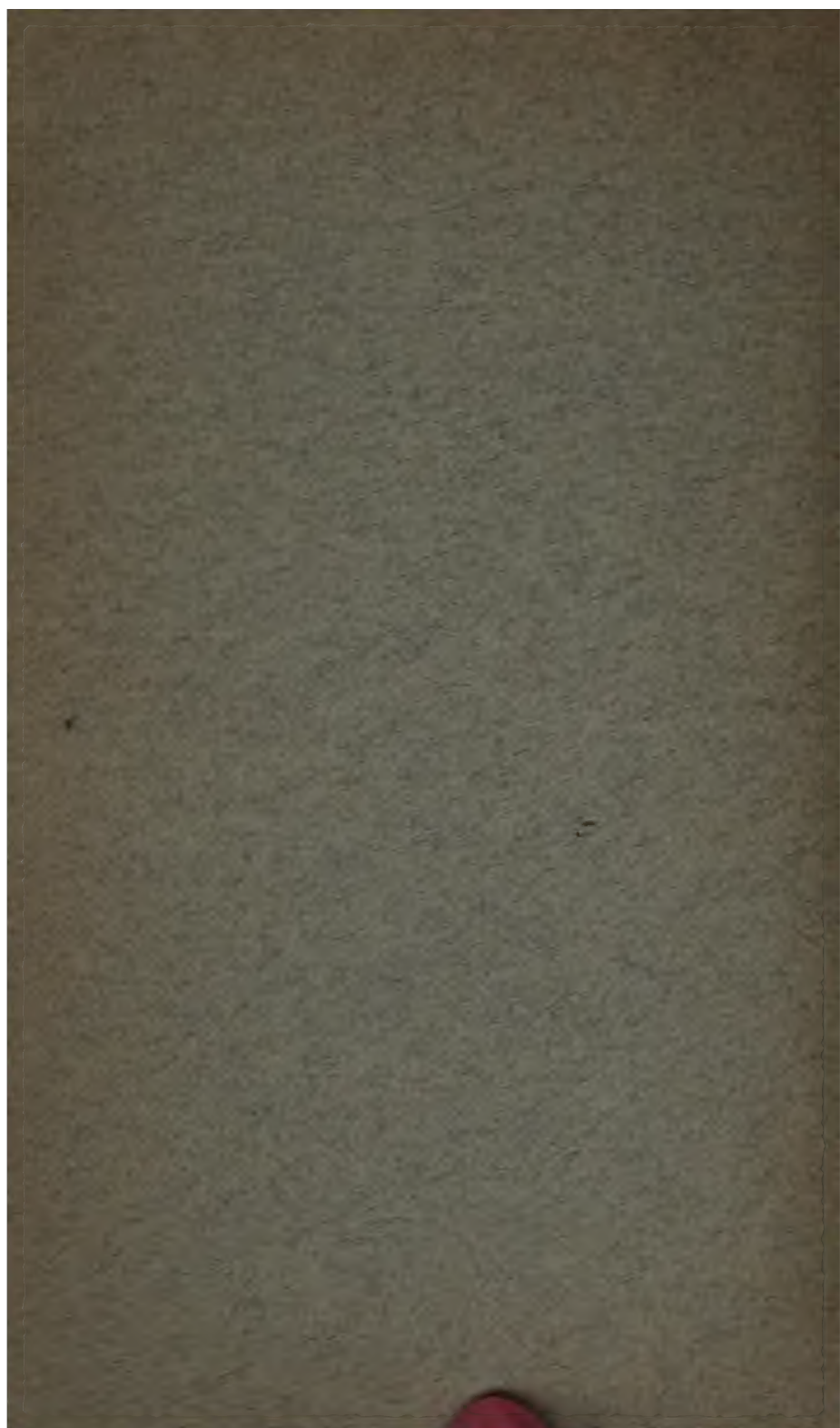
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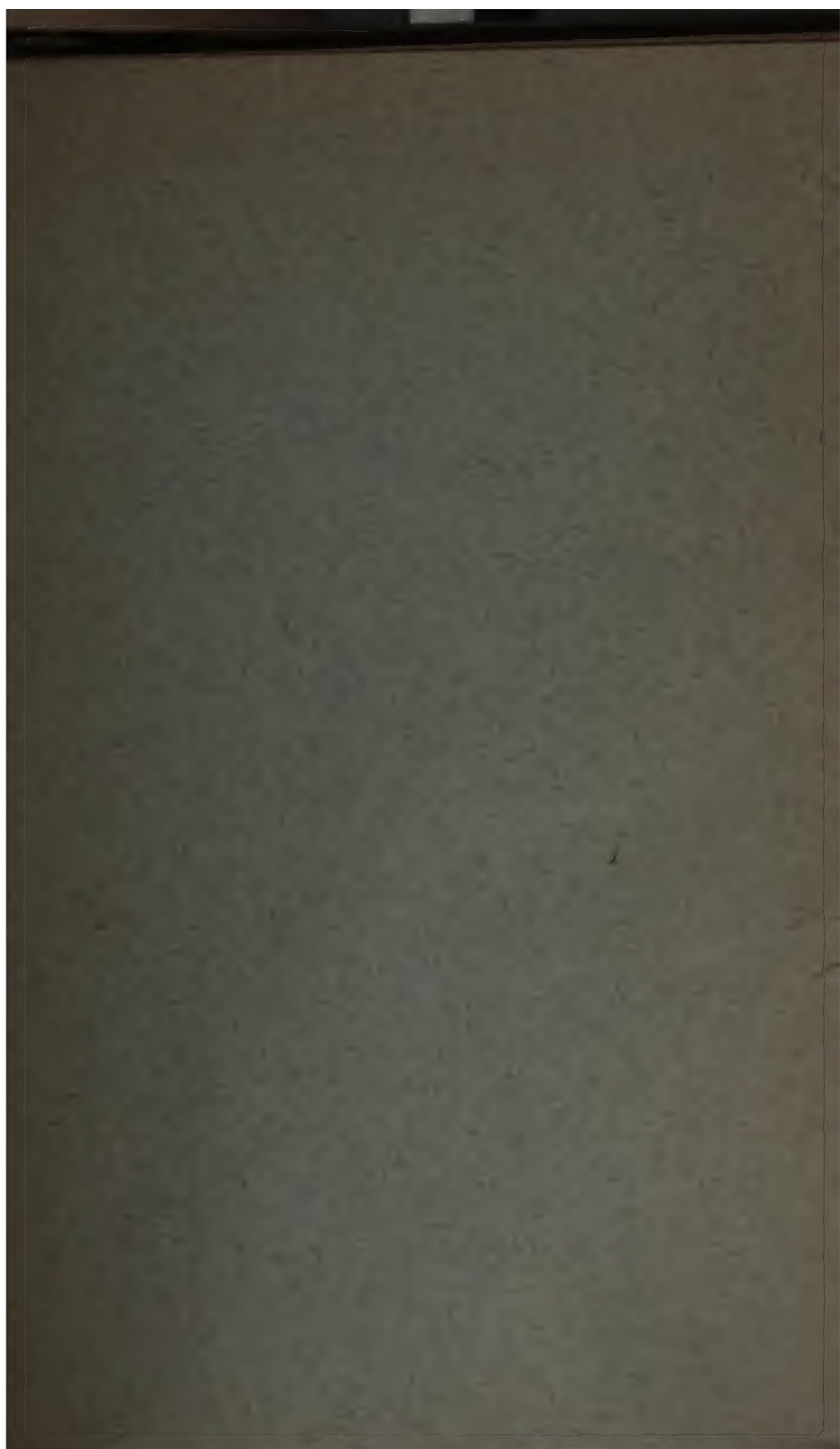
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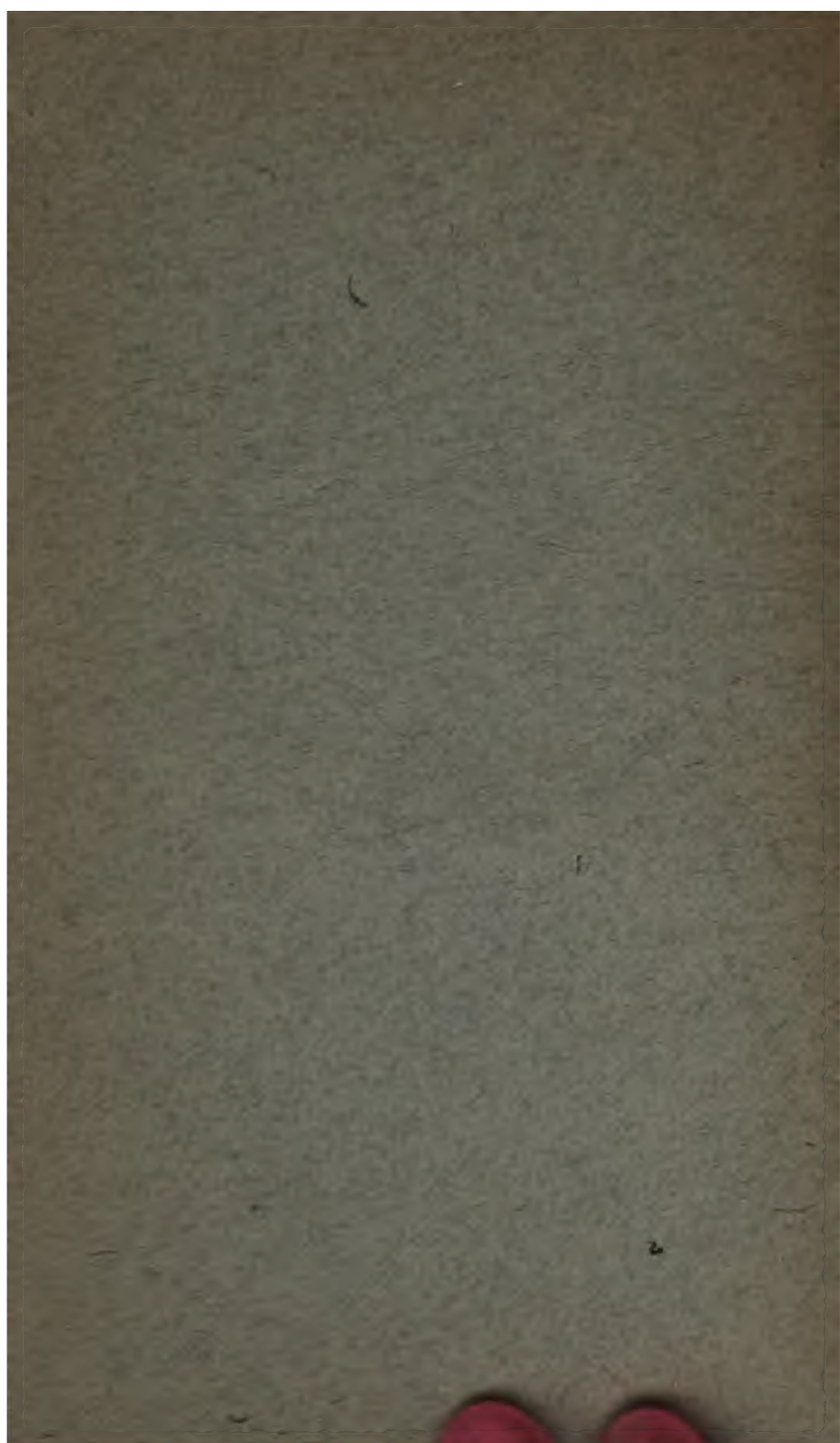




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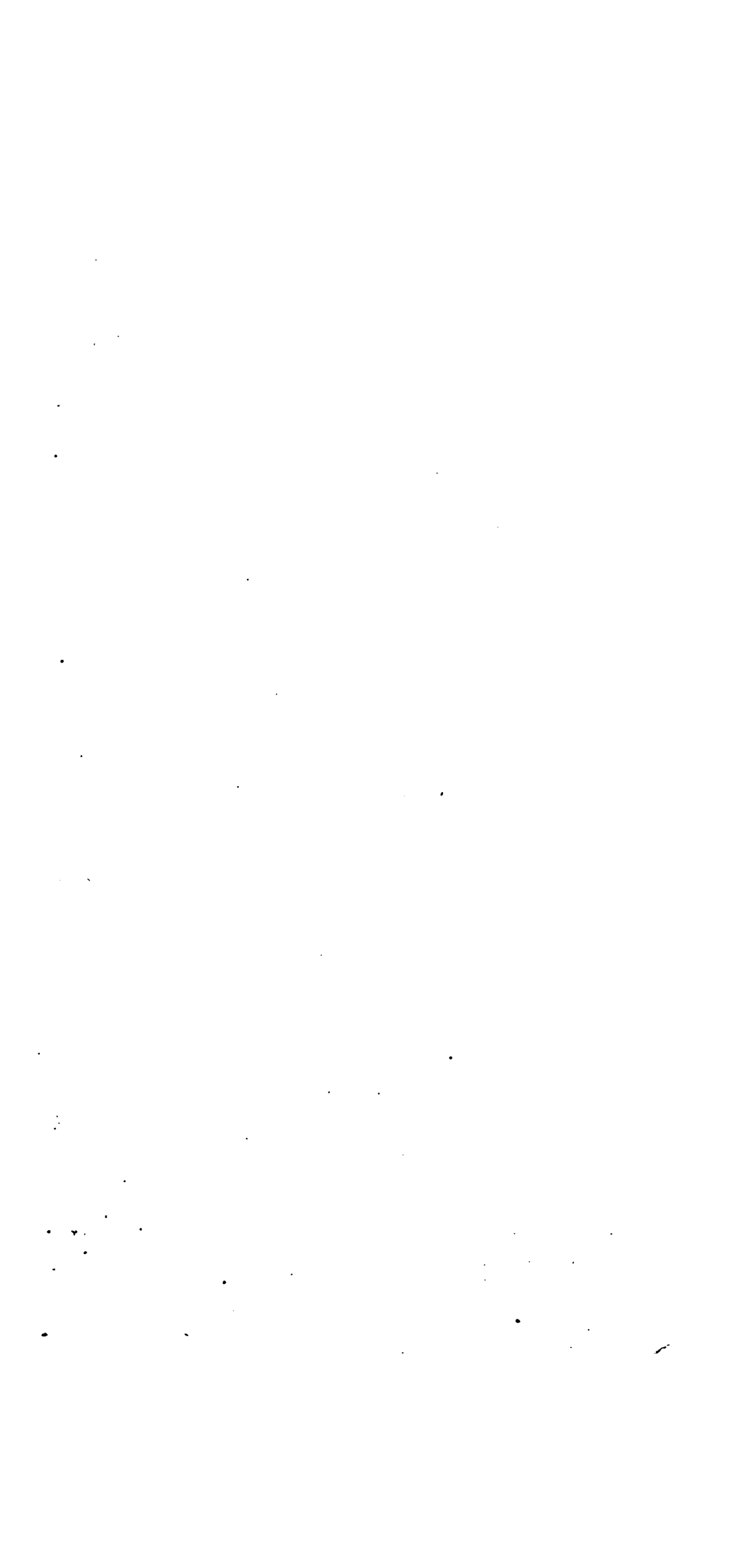
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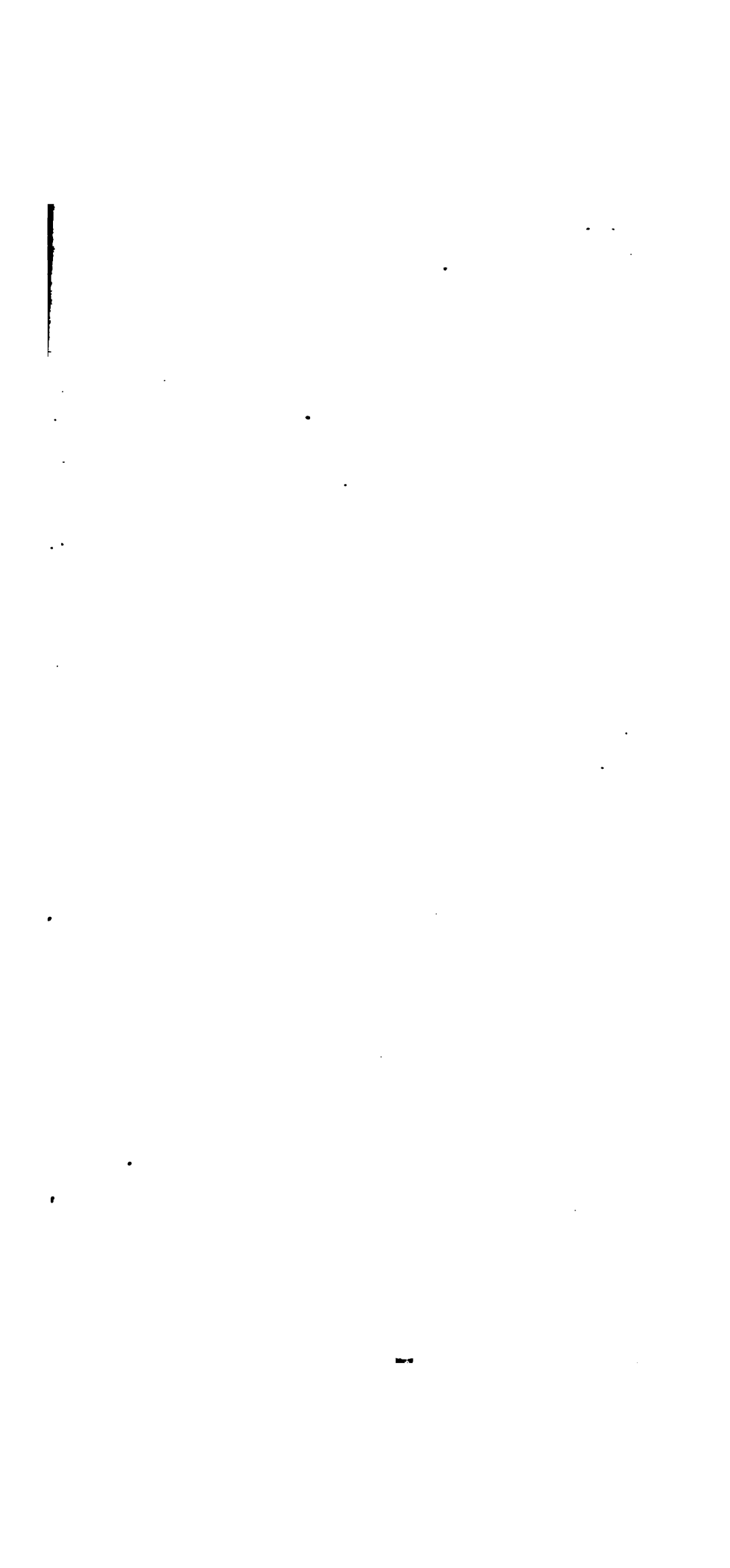
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HERMATHENA.

THE HOMERIC QUESTION AND THE TEUTONIC EPICS.^(a)

DURING the greater part of the past century the origin and historical credibility of the *Iliad* have been the subject of continuous discussion, but even at the present day the critics are as far as ever from arriving at any unanimous decision ; nor has any theory acquired a decisive preponderance of authority in its favour. Although on all points the greatest diversity of opinion is exhibited, and the views of different authors may be arranged like the colours of the rainbow, yet upon the whole, three distinct theories, with greater or less modifications,

(a) 1. Edda Sæmundar hins Froda, Edda Rhythmica, seu Antiquior, vulgo Sæmundina dicta, &c., &c., &c., Hafniæ, 1787, 1818, 1828.

2. The story of the Volsungs and Nibelungs with certain songs from the Elder Edda. Translated from the Icelandic by Eiríkr Magnússon and William Morris. London: F. S. Ellis, 1870.

3. Walterius. Monumenta Historiæ Patriæ edita jussu Regis Caroli Alberti, Augustæ Taurinorum, e Regio Typographeo. 1845, vol. 5. pp. 132-162.

4. Das Nibelungen Lied.

5. The fall of the Nibelungers, otherwise the Book of Kriemhild, a translation of the Nibelunge Nôt, or Nibelungenlied by William Nansom Lettsom. Williams and Norgate, London, 1850.

6. La Littérature Allemande au moyen âge et les origines de l'épopée Germanique: par A. Bossert. Paris, 1870. Librairie, Hachette & Cie.

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are found to exist: (1) the ancient and ever popular belief in the unity of the authorship, which attributes to some one poet the composition of the work in almost its present condition; the difficulties incident to this view are attempted to be removed by the supposition that the original work was subjected to corruption and interpolation, or was even broken up into distinct portions separately recited and subsequently, perhaps unskilfully, reunited; (2) the well-known Wolfian theory, which considers the Iliad to consist of various distinct lays by different authors, dovetailed together by an editor, although as to the time at which and the person by whom this was done there is no agreement, nor is it at all material for this theory to ascertain the precise date or manner of the arrangement of the antecedent separate ballads; (3) and lastly, the opinion that an epic poem composed by some one author, and possessing unity of design, was the original basis of the Iliad, but that a very large proportion of the present work consists of other poems, whether by the same author or not, interpolated into or annexed to the original work, which by such successive additions has been expanded to its present dimensions.

Until a comparatively late period, the Homeric question was discussed as if the Iliad was a poem *sui generis*, or, if it was compared with other epics, those chosen for comparison were of an entirely different class and origin; but when the Greek and Latin authors ceased to be the only ancient literature deemed worthy of study, it was generally discerned that the Iliad was one only of a family of ancient national epics, as to the origin, authorship and historical value of all which precisely the same questions arose in every case, although in each several instance the amount of evidence upon which conclusions could be drawn necessarily differed. It is of the utmost importance in considering the origin and historical value of any such poem to possess,

if possible; some knowledge of the antecedent poetry of the nation, and independent and collateral evidence as to the history of the period during which the action of the poem is supposed to have taken place; but unfortunately the discussion as to the composition of a national epic commenced with and was long confined to the poem, in the case of which there existed no external or collateral information whatsoever. There exists no early Greek epopee, which we can discover in the Iliad, nor even any of the cyclic poems, which might give some clear idea of the distinct legends which by the author of the Homeric epic may have been fused into one consistent whole.

Arguments as to the historical value of the Iliad have no commencement in fact or logical conclusion, inasmuch as the early Grecian history is derived from the Iliad itself, or guessed at from myths, the practical value of which may be estimated by the fact that the last result of critical inquiry leaves it uncertain whether the Greek tribes migrated from European Greece to Asia Minor, or from Asia Minor to European Greece. Deprived thus of any external evidence, the critics of the Iliad attempted to solve the questions raised by an examination of the poem itself, and as is usual in such cases, each author, approaching his work with a bias of which he was himself perhaps ignorant, saw in the poem evidence of what he was inclined to believe; the advocate of the unity of authorship discerned the skilful development of the characters of the heroes and the uniformity of the style, without inquiring whether the same observations were not applicable to the ballad poetry of any one epoch; the disciples of the Wolfian hypothesis dwelt on acknowledged contradictions and discovered microscopic inconsistencies, without reflecting that a similar course of criticism would *a fortiori* attribute Don Quixote to an almost unlimited number of distinct authors; when critical sagacity assumed to redistribute the text among the

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various lays of which it was composed, each inquirer adopted his own ideas of what such a poem ought to be, as the test of what the poem itself was, and attributed to himself a refined æsthetic discernment which of course his opponents repudiated or ridiculed. Thus Lachmann, having dissected the 2200 lines in the Iliad, extending from the commencement of the eleventh book to the 590th line of the fifteenth, into four songs "in the highest degree different in their spirit," tells us that "whosoever thinks this difference of spirit inconsiderable—whosoever does not feel it at once when pointed out—whosoever can believe that the parts as they now stand belong to one artistically constructed epic—will do well not to trouble himself any more with any criticisms or with epic poetry, because he is too weak to understand anything about it." ("Weil er zu schwach ist etwas darin zu verstehen"). On the contrary, Ulrici, having shown that the composition of Homer satisfies perfectly, in the main, all the exigencies of an artistic epic, adds that this will make itself at once evident to all those who have any sense of artistic symmetry; but that for those to whom that sense is wanting, no conclusive demonstration can be given. He warns the latter that they are not to deny the existence of that which their short-sighted vision cannot distinguish; "for everything cannot be made clear to children, which the mature man sees through at a glance."

The English critics exhibit more courtesy than the German, but their contradictions of each other's views are equally decided. Mr. Grote absolutely rejects the ninth book of the Iliad for reasons which to him seemed decisive. "The ninth book," he writes, "as it now stands, seems to me an addition by another hand to the original Achilléis, framed so as both to forestall and spoil the nineteenth book, which is the real reconciliation of the two inimical heroes; I will venture to add that it carries the pride and

egotism of Achilles beyond even the largest exigencies of insulted honor, and is shocking to that sentiment of Nemesis, which was so deeply seated in the Greek mind. We forgive any excess of fury against the Trojans and Hector after the death of Patroclus; but that he should remain unmoved by restitution, by abject supplication, and by the richest among presents, tendered from the Greeks, indicates an implacability such as neither the first book, nor the books between the eleventh and the seventeenth convey." (Hist. of Greece, vol. i. p. 560, edit. 1862.) From this opinion Sir George C. Lewis altogether dissents: "I cannot agree," he writes, "with your view of the early books of the Iliad; and I doubt the possibility of distinguishing between an Achilleid and an Iliad. In particular the ninth book, which you consider of inferior execution, seems to me one of the finest parts of the poem; and at all events, it relates mainly to Achilles." (Life of G. Grote, page 164).

When an author has left behind acknowledged and authentic works, it is possible by a study of these to acquire some knowledge of his mode of thought and expression, and of what was the ideal of art to which he endeavoured to attain; and thus having gained an insight into the mode in which he would probably deal with a given subject, to form some judgment as to the authenticity of any other production attributed to him. Experience, however, shows that such a critical process is both difficult and unsatisfactory. In the case of the English plays of the Elizabethan era, dealing with works in their own language, and possessing ample means of comparison, critics are often at a loss as to what portion of a drama should be attributed to each of the joint authors. Could a Frenchman even of the present day divide the Monte Cristo between Dumas père and Maquet? The value of the result of the application to the Iliad of *a priori* æsthetics may be estimated if we

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imagine English to have become a dead language, the Elizabethan era to have been utterly forgotten, and the Fairie Queen to have been preserved as the sole surviving fragment of the literature of the 16th century, and then that this work should be criticised some 2000 years hence by the scholars of some nation now unknown. How utterly unable would they be to place themselves in the position of the author! would they attribute the work to one, or break it up between many distinct authors?—what contradictions would be discovered between the different cantos!—what theories as to the sources from which the subject matter had been drawn, and the meaning of the different characters! How could such a critic under similar circumstances deal with the plays of Shakespeare? how many passages would he regard as unworthy of the author! how many contradictions and impossibilities would he discover! Let any one attempt to criticise a play of Shakespeare by the contemporary standard of taste, and what would be the result? We have it fairly exhibited in Dryden's *rifacimento* of the *Tempest*. It is not to be denied that in ancient works, which have been subject to corruption of the text, and interpolation from time to time, passages do occur so manifestly out of place, so incongruous and contradictory to the spirit of the rest of the work, that they are rejected by the unanimous consent of all critics; no one can doubt that, in the great battle of the *Mahābhārata* the dialogue between Krishna and Arjuna on the morning of the first day of the combat, as to the various forms of devotion which lead to the purification of the soul (known as the *Bhagavat-Gīta*) never formed part of the original work; no more than the sermon as to places of pilgrimage in the same poem introduced before the combat between Duryodhana and Bhima. Upon such a question there can be little doubt, but we cannot but hesitate to listen to a critic who informs us that he, by his sagacity, has discovered that the Works

and Days of Hesiod is a digest of five other shorter Works and Days, the limits of which he lays down; and each of which again he assures us is itself a compound of a number of more minute fragments, partly genuine, partly interpolations of different periods.*

The study of mediaeval European literature introduced a new element into the discussion of the Homeric. It was then for the first time discovered that in all societies similar to the Greek heroic age, there existed a vast mass of ballad poetry, which in some cases had crystallised into epic poems, that is, had been arranged or rather digested into a poetical work of considerable length, possessing a unity of action and resulting in a definite denouement. The mode of composition and the historic value of such mediaeval poems were further to a great extent capable of being tested by collateral evidence. The examination of analogous works, whence the plots were derived, and the inquiry how the antecedent ballads were combined into one single whole, have superseded the method of criticising the text of the *Iliad* according to rules arbitrarily assumed by each successive writer. It was soon evident that the terms used in the statement of the various theories of the origin of the *Iliad* required to be revised, and that none of the theories themselves could be applied to the mediaeval epics in their full extension. In what cases can a national epic be considered an original composition? Every such work is admittedly founded upon an antecedent tradition. Does such a composition cease to be original when based upon a previous poem? Is it original when it not only adopts the plot of an antecedent epopee, but even incorporates passages of more ancient poems? Is there any instance of an epic formed from previous epopees by the simple process of stringing them one after the other in a sequence? How far

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does the Wolfian hypothesis admit of a modification of the several poems which together make up the whole? If it be once admitted that the epics of the middle ages were formed under circumstances analogous to the *Iliad*, it becomes necessary to ascertain whether the theories put forward in respect of the latter are applicable to the former. If it should appear that the mediaeval epics were constructed in a particular manner, it does not indeed follow that the origin of the *Iliad* was the same, but there is at least a probability that under similar circumstances the course of development would be similar. It is therefore interesting as bearing on the Homeric question, to consider how any given mediaeval epic was constructed.

Of all the mediaeval European epics, the lay of the Nibelungs is that which is the most advantageous for such a comparison. There exists considerable collateral evidence both of its origin and of its historical value. The *Chanson de Roland* is a remarkable instance of the extent to which the facts of history may be falsified, but we possess no means of ascertaining out of what original ballads it was composed. The other French *Chansons de Geste* deal with personages and events so imaginary, that an inquiry as to their origin is complicated and unsatisfactory. The story of the *Cid*, on the other hand, treats of events so recent, at the time of its composition, that it almost assumes the character of a contemporary narrative. Although the same process might be applied to any of these poems, the lay of the Nibelungs is that in which the premises are the most simple and the result the most obvious; at the same time it is undoubtedly the greatest of the mediaeval epics, and as such the most worthy of consideration. It is proposed in this article to consider the sources from which it is derived, and the mode in which the author of the poem, as it exists in its last recension, dealt with antecedent works upon the same subject. Such an inquiry cannot fail to

throw light upon the vexed questions of the nature of a national epic, its origin, and mode of composition, and thus to suggest, at least by analogy, how the *Iliad* may have been composed and attained its present form.

The story of the *Nibelungenlied* is based upon distinct and originally unconnected legends, which when subsequently combined mutually modified each other. Although the different legends have been very successfully blended, yet there exist many passages inconsistent with the modern form of the plot, and which have not any meaning unless with reference to incidents which had been deliberately rejected by the later author. When we speak of the author of the *Nibelungenlied* combining and altering antecedent poems of which we still possess copies, it is not to be understood that the later poet either himself consciously worked upon the earlier legends or that he was acquainted with them as we now possess them; the story of the *Nibelungs* must have assumed somewhat of its present form as early as A.D. 1130, and much of the alterations introduced both in the plot and the descriptions of manners and places may have arisen not so much by the design of the poet, as from the unconscious and gradual accommodation of the lays to the ideas of the audience. But even admitting that we cannot now ascertain the extent to which the author of the lay, as it now exists, consciously altered the antecedent poems, or even perhaps recast a previous poem on the same subject, the question arises, what makes the present lay one single work? Why is it recognised as an epic poem, and not a mere cento of previous ballads? By what process did the fluctuating mass of antecedent poems crystallise into a consistent whole? Was this accomplished by the simple process of writing, one after the other, the more ancient poems into the same book? What was the amount of editorial skill required for this process? Was there further needed some subtle element which no mere editor could

supply? Was it requisite that the genius of some one poet should animate the mass and change the clay image into a living man? And if so, how far is it correct to attribute the poem to some one author and to treat it as a single work?

When a reference is made to the legends upon which the Lay of the Nibelungs is founded, it is not to be imagined that we possess a complete collection of them, or that the present form of those, which have survived to us, is necessarily older than the Lay of the Nibelungs itself. The relation of the lay to the works upon which we believe it to have been founded may be fairly stated thus:—There exist certain tales, dealing each of them with a greater or less proportion of the events which form the lay; these tales in their origin are antecedent, not subsequent, to the composition of the lay, because in the latter reference is frequently made to passages of the former, with which it is assumed the audience is familiar. The lay is manifestly formed by the combining of the earlier works, for in many places the metal has evidently not been completely fused; and all the differences in manners and local descriptions between the earlier tales and the lay are just what might have been expected to have taken place in consequence of the introduction of Christianity, Feudalism, and Chivalry. It cannot be asserted that the author of the lay was acquainted with the earlier tales in the form in which they now exist (as to some of them we may be certain he was not), but he was undoubtedly acquainted, whether from recitations or reading is immaterial, with the same tales which we now possess, and in a very similar, if not almost identical form.

The antecedent tales upon which the Lay of the Nibelungs is based may be divided into three distinct classes, the legend of Siegfried, the legend of Attila, and the legend of Dietrich of Bern.

It is not intended in the present article to embark into

the indefinite inquiry as to the origin of the tale of Siegfried or Sigurd; it is immaterial whether he was an historical, mythical, or elementary character; all that is necessary for the purpose in hand is to understand what the legends were, which were fused into the lay. Two distinct tales of Siegfried were manifestly known to the author of the lay, viz.: the Volsunga Saga, and the tale of the horned (or horny) Siegfried. The former of these is the rock upon which the whole lay is constructed.

The earliest edition of the story of Sigurd (the form of the name in the Norse tales) exists with considerable lacunæ in the songs of the Elder Edda, which were, if we may use the expression, republished about the 12th century, in a modern popular form, in the Volsunga Saga. Whether the German minstrels were aware of the existence of the Norse Saga or not, they were familiar with the tale as told in that work. Rejecting the passages which have no connexion with the lay, the story, which commences in the 13th chapter of the Saga, runs thus.*

Sigurd, of the blood of the Volsungs, and the posthumous son of Sigmund, is brought up at the Court of the King Hjalprek. His treacherous foster-father, Regin the son of Hreidmar, urges him to various adventures, and finally advises him to seize upon the treasure of the worm (dragon) Fafnir on the waste of Gnita-heath. To the question of Sigurd, "why dost thou egg me on thereto so busily?" Regin tells him the history of the fatal hoard. Hreidmar had three sons, Fafnir, Otter, and Regin himself. Otter, as was usual in these early beast tales, had the power of transforming himself into the animal of the same name. One day Otter in his animal form lay half sleeping on the river bank, mumbling a salmon which he had taken, when the three gods, Odin, Loki and Hœnir, travelling on earth

* In all extracts from the Volsunga and Magnússon has been followed. Saga, the translation of Messrs. Morris

in human form, passed by. Loki cast a stone and slew Otter, and having flayed off the skin, the three wandering gods fared on to the house of Hreidmar and craved hospitality. Hreidmar, having recognised the skin of his son, seized upon his guests and doomed them to the ransom that they should cover with gold the skin of the slain, much as Howel Dha condemned the murderer of a cat to cover the body with a heap of corn. Loki, having been allowed to go forth for the purpose of raising the money, succeeded in so doing by catching in a net the dwarf Andvari, when swimming in the river under the form of a pike. Loth was the magic dwarf to part with his wealth, yet to surrender it he had, and it was carried by Loki to the house of Hreidmar. One fair ring there was which Odin had fain have kept for himself, but on regarding the gold heap Hreidmar saw yet a muzzle hair visible above the piled up gold, and the unwilling god had to cover it with the ring which he drew from his finger. By the immortals to the mortal was the treasure unwillingly yielded, and they cast their curse upon it, that it should be fatal to both Hreidmar and his son. The predictions of the gods were fulfilled by the murder of Hreidmar by his son Fafnir, who, changed into the form of a hateful worm, ever since had lain brooding over his treasure. Sigurd accepts the adventure; a sword is forged for him, which he proves in the water of the Rhine, and having previously wreaked vengeance on the slayer of his father Sigmund, he starts upon his expedition against Fafnir the worm. Sigurd surprises and mortally wounds Fafnir, who in dying has a long conversation with his victor, which ends thus,—Sigurd answered, "Such as thy redes are I will nowise do after them; nay I will ride now to thy lair and take to me that great treasure of thy kin." "Ride there then," said Fafnir, "and thou shalt have gold enow to suffice thee for all thy lifetime; yet shall that gold be thy bane, and the bane of every one

whosoever owns it." Then up stood Sigurd and said, "Home would I ride, and lose all that wealth if I deemed by the losing thereof I should never die; but every brave and true man will fain have his hand on wealth till that last day; but thou Fafnir wallow in the Death pain till Death and Hell have thee." Regin, approaching after the combat, congratulates Sigurd and requests him to roast for him the heart of the worm. In roasting the heart, Sigurd accidentally tastes it, and thus having acquired the power of understanding the voices of the birds, learns that Regin is a traitor to him. He slays his faithless fosterer and seizes the treasure of the worm. He took away gold exceeding plenteous, the sword Rotti, the Helm of Awe, the Gold Byrny, and many things fair and good; there was as much gold as two horses could bear; yet all this, and the rider too, his good horse Grain bore; and so with his treasure Sigurd fared forth southward to the land of the Franks. As he journeyed, he came to a castle, wherein he found one all armed, yet asleep. As he took off the armour he discovered that the sleeper was a woman, Brynhild the half divine half mortal heroine, who had been cast into a magic slumber by Odin, because contrary to the gods' decree she had smitten down in battle Helm Gunnar. The heroine awakes; a long conversation ensues, in which she gives him much mystical advice, but at its conclusion mortal love predominates. Sigurd spake, "None among sons of men can be found wiser than thou; and thereby swear I that thee will I have as my own, for near to my heart thou liest." She answers, "Thee would I fainest choose, though I had all men's sons to choose from." And thereto they plighted troth both of them. Notwithstanding their plighted troth, Sigurd rode thence, and at last as he fared upon his adventures, he came to the house of the great chief Heimir, who was the husband of Bekkhild, the sister of Brynhild; while he there abode, Brynhild arrived at her

sister's house. Sigurd and Brynhild renew their loves, but the prophetic soul of the latter discerns the future destiny of both. He kissed and said, "Thou art the fairest that ever was born!" But Brynhild said, "Ah! wiser is it not to cast faith and truth into a woman's power, for ever shall they break that they have promised." He said, "That day would dawn the best of days over our heads, wherein each of us should be made happy." Brynhild answered, "It is not fated that we should abide together; I am a shield-may and wear helm on head, even as the kings of war, and them full oft I help; neither is the battle become loathsome to me." Sigurd answered, "What fruit shall be of our life, if we live not together? harder to bear this pain that lies hereunder, than the stroke of sharp sword." Brynhild answers, "I will gaze on the host of the war Kings, but thou shalt wed Gudrun the daughter of Guiki." Sigurd answers, "What King's daughter lives to beguile me? neither am I double-faced herein, and now I swear by the gods that thee shall I have for mine, or no woman else." And even in such likewise spoke she.

The 25th chapter of the Saga proceeds thus. There was a King hight Giuki, who ruled a realm south of the Rhine; three sons he had, thus named, Gunnar, Hogni and Gottorm, and Gudrun was the name of his daughter, the fairest of maidens: and all these children were before all other king's children in all prowess, in goodliness and growth withal.

Now Budli was the name of a King mightier than Giuki, mighty though they both were; and Atli was the brother of Brynhild; Atli was a fierce man and a grim, great and black to look on, yet noble of mien withal, and the greatest of warriors. Grimhild* was a fierce-hearted woman.—On a day Gudrun says to her mays that she may

* The wife of Giuki.

have no joy in her heart ; then a certain woman asked her why her joy was departed. She answered, "Grief came to me in my dreams, therefore is there sorrow in my heart, since thou must needs ask thereof." She first describes her dream as touching a beautiful hawk which she bore upon her wrist, although she afterwards gives a different account of it. By the advice of her maidens she consults the mystic Brynhild, who predicts the future with a distinctness unusual in such prophetic utterances, "I will rede thy dream, even as things shall come to pass hereafter, for Sigurd shall come to thee, even he whom I have chosen for my well-beloved ; and Grimhild shall give him mead mingled with hurtful things, which shall cast us all into mighty strife. Him shalt thou have, and him shalt thou quickly miss ; and Atli the King shalt thou wed ; and thy brethren shalt thou lose, and slay Atli withal in the end." Meanwhile, unconscious of the prophecy, Sigurd arrives with all his treasures at the house of King Giuki. Here Sigurd abode, and oft they all ride abroad together, Sigurd and Gunnar and Hogni, and ever is Sigurd far the foremost of them, mighty men though they were. "But Grimhild finds how heartily Sigurd loved Brynhild, and how oft he talks of her, and she falls to thinking how will it be, if he might abide there and wed the daughter of King Giuki, for she saw that none might come anigh to his goodliness, and what faith and good help there was in him, and how that he had more wealth withal than folk might tell of any man :"—to effect her purpose she gave a draught of mead to Sigurd, and "with the drinking of that drink the memory of Brynhild departed from him." Grimhild proposes to Giuki that Gudrun should be given to Sigurd, and "on a day Gudrun pours out the drink and Sigurd beholds how fair she is and full of all courtesy. Five seasons Sigurd abode there, and ever they passed their days in good honour and friendship." Afterwards Sigurd married.

Gudrun, and when allied to Sigurd the three sons of Giuki were great and invincible. "Now fare these folk wide over the world, and do many great things, and slay many Kings' sons, and no man has ever done such works of prowess as did they; then home again they come, with much wealth won in war." Meanwhile the kinsmen of Brynhild insisted that she should marry, as she herself explains it in the Edda.

"Then spoke Atli
To me apart,
And said that no wealth
He would give unto me,
Neither gold nor lands
If I would not be wedded;
Nay, and no part
Of the wealth apportioned,
Which in my first days
He gave me duly;
Which in my first days
He counted down."

She therefore retired into her hall, which was surrounded by magic flaming fires, for she would marry none but the champion who could ride through the fire to win her. Meanwhile Grimhild advised her son to marry Brynhild; "Good ride in this," said she, "and Sigurd will ride with thee." Gunnar answered, "Fair is she certes and I am fain enow to win her." But when they came to the circle of fire, Gunnar, both horse and man, failed even to attempt it. In vain he borrowed the horse of Sigurd; the horse without his bold rider could not be forced to face the fire. Then Sigurd changed semblance with Gunnar, rode through the fires and claimed the hand of Brynhild. She asked him who he was, and in answer he declared that he was Gunnar the son of Gluki, and said, "Thou art awarded to me as my wife by the good will and word of thy father and thy foster father,

and I have ridden through the flames of thy fire, according to the word that thou has sent forth." She adjured him not to speak of such things unless he was the best and first of all men. He appealed to her oath, "concerning the riding through this fire, wherein thou didst swear that thou wouldst go with the man who would do the deed." Three nights he lay beside her with a drawn sword between them, and when he departed "she took from off her finger the ring Andvari's-loom, which he had given her aforetime, and gave it to him, but he gave her another ring out of Fafnir's hoard;" so he rode away and she returned to her father's house, and there in due time was wed to Gunnar, whom she believed to be "the first and best of men." Afterward when Brynhild and Gudrun were bathing, the former waded further into the water, and asked the latter what this meant. She explained it as typifying her superiority to Gudrun, "because my father is mightier than thine, and my true love has wrought many wondrous works of fame, and hath ridden through the flaming fire withal, while thy husband was but the thrall of King Hjalprek."

To this Gudrun retorts: "Little it beseems *thee* of all folks to mock him, who was thy first beloved; and Fafnir he slew, yea, and he rode thy flaming fire, whereas thou didst deem it was Gunnar the King, and by thy side he lay, and took from thy hand the ring Andvari's-loom; here mayest thou well behold it." The indignation of Brynhild is unbounded; she had been deserted by her first love, and had married one not "the first and best of men," but a traitor and liar, believing him to have accomplished what was done by none, and could have been done by none but by "her first beloved." Against Gudrun, Sigurd, and Gunnar is she equally wroth. To Gudrun she says, "For this shalt thou pay in that thou hast got Sigurd to thee—nowise can I see thee living in the bliss thereof, whereas thou hast him, and the wealth and might of him:" and again, "Have thou

joy of Sigurd according to the measure of the wiles wherewith ye have beguiled me ! unworthily have ye conspired against me ; may all things go with you as my heart hopes ! ” To Gunnar she says subsequently, “ Pale as a dead man didst thou wax, and no King art thou, and no champion ; so whereas I made a vow unto my father, that him alone would I love who was the noblest man alive, and that this is none save Sigurd ; lo ! now have I broken my oath and brought it to nought, since he is none of mine.”

When Sigurd himself strives to console her, and praises the sons of Giuki, she replies, as though hoping he still loved her, “ Surely for many an ill deed must I reward them ; mind me not of my griefs against them ! But *thou* Sigurd slewest the Worm, and rodest the fire through ; yea, and for my sake, and not one of the sons of Giuki.” Sigurd answers, “ I am not thy husband, and thou art not my wife.” When he offers her all his wealth “ if she would die not ” she answers, “ Thou knowest me not, nor the heart that is in me ; for thou art the first and best of all men, and I am become the most loathsome of women to thee.” “ This is truer,” says Sigurd, “ that I loved thee better than myself, though I fell into the wiles from whence our lives may not escape.” Said Brynhild, “ I swore an oath to wed the man who should ride my flaming fire, and that oath will I hold to or die.” Hereupon it seems that Sigurd’s truth to his own wife yields to the remembrance of his first love. “ Rather than thou die, I will wed thee and put away Gudrun,” says Sigurd. Brynhild resents this as the last insult : “ But therewithal so swelled the heart within the sides of her, that the rings of the byrny burst asunder. “ I will not have thee,” said Brynhild, “ nay, nor any other.” Brynhild then urges Gunnar to slay Sigurd, who, thinking that Brynhild was better than all things else, consults his brother Hogni as to the murder. Hogni advises that if Sigurd lived, none would be so great as they : “ But well I see how things

stand, for this has Brynhild stirred thee up to, and surely shall her counsel drag us into huge shame and scathe." Gunnar proposes that their youngest brother, who was young and of little knowledge, should be egged on to do it. To which Hogni answers, "Ah! set about it in ill wise, and though indeed it may be well compassed, a due reward shall be given for the bewrayal of such a man as is Sigurd." Guttorm, egged on by his brothers, slays Sigurd as he lies in bed, but the expiring hero flings after the murderer his sword, which smote him asunder, and then having addressed his last words to Gudrun expires. Brynhild having accomplished her purpose against Sigurd, and foreseeing the fate of Gunnar, Hogni, and Gudrun, stabs herself, and according to her own directions is burnt beside Sigurd, with a drawn sword between them, "as in the former days when they twain slept in one bed together;" at their feet lay two of her men, two more at her head, and five bondswomen and eight bondmen beside. The son of Sigurd by Gudrun was slain and burnt at the same time as his father, according to the advice of Brynhild, "Never nourish thou a wolf-cub." Gudrun fled away through the woods to the house of King Alf, whither her kin followed her, offering her gold in atonement, and urging her to marry Brynhild's brother, King Atli. The King she married, and afterward he "falls to thinking of where may be gotten that plenteous gold which Sigurd had owned, but King Gunnar and his brethren were lords thereof now. Atli was a great King and mighty, wise and a lord of many men; and now he falls to counsel with his folks as to the ways of them. He wotted well that Gunnar and his brethren had more wealth than any others might have; and so he falls to the rede of sending men to them, and bidding them to a great feast, and honouring them in diverse wise, and the chief of these messengers was hight Vingi. Now the Queen wots of their conspiring, and misdoubts her that this would mean some

beguiling of her brethren; so she cut runes and took a gold ring, and knit thereto a wolf's hair, and gave it into the hands of the King's messengers." The messenger delivers his message to Gunnar; Hogni remarks the wolf's hair knotted to the ring, and warns them of the treachery, but in vain. Dreams and evil omens occur, but fail to turn them, and Gunnar, Hogni, and all their following embark, and at length arrive at the burg of Atli, where they find the gates closed and a mighty host prepared to meet them. "They rode into the King's hall, and King Atli arranged his host for battle." "Welcome hither," he said, "deliver unto me that plenteous gold, which is mine by right, even the wealth which Sigurd once owned and which is now Gudrun's by right." The combat commences, Gudrun takes up arms and fights on the side of her brethren. The strangers are at length all slain, saving Gunnar, Hogni, and the thrall Hjalli. Gunnar in his prison is required to tell where the gold is, if he would save his life; he requires first to see the head of Hogni; the head of the thrall Hjalli is shown to him, but by the quivering he knows it is not the head of the valiant Hogni; at last the head of Hogni is placed before him, whereupon, to go back to the Edda, he sings:

"Behold in my heart
Is hidden for ever
That hoard of the Niblungs,
Now Hogni is dead.
Doubt drew me two ways
While the twain of us lived:
But all that is gone
Now live I alone.

"The great Rhine shall rule
O'er the hate-raising treasure
That gold of the Niblungs,
The seed of the gods:

In the weltering water
Shall that wealth lie a-gleaming,
Or it shine on the hands
Of the children of Huns."

Gunnar is cast into a worm-close, where he is stung to death by serpents. Gudrun wreaks a Thyestian revenge on Atli: she slays her children by him, serves them up at his triumphal feast, and finally kills him with her own hand. After her husband's death, she escapes to meet other adventures, which have no connexion with the Nibelungenlied.

The story of Sigurd and Brynhild, although connected with the Rhine, has no historical basis; it is referrible to no particular time or place; the names of Goths and Huns are merely used indefinitely to indicate power and greatness; Sigurd is styled a Hun chief as well as Atli; and if the name of the latter has an etymological connexion with that of Attila, the author has no idea of the latter, either of an historical or mythical nature. Although the tale could not fail to excite lively interest, the mode in which it was worked out was repugnant to the feelings of Mediaeval Europe. It represents the ideas of the early Teutonic tribes before their conversion to Christianity, which, though it may have morally benefited them, without doubt deteriorated their artistic powers. It resembles more than any other legend the heathen conception of a divine Nemesis, and approaches in this to the highest form of the Greek tragedy. Sigurd, of the glorious but fated house of the Volsungs, chooses a life of power and glory, destined to be prematurely cut short, rather than peace and security as a retainer of King Hjalprek. The treasure of Fafnir, which he with full knowledge of the consequences acquires, entails upon him inevitable disaster, yet not without the result being worked out, in some degree, by his own acts. His forgetfulness of his first love, although the magic draught somewhat excuses his conduct, ends in his being a party

to the deception practised upon Brynhild. The magic ring of the dwarf Andvari is the cause of his detection ; no effort of his own can save him from death at the instigation of his first love, whose mingled motives are love for him and indignation at the disgrace which he has brought upon her. Brynhild who had dared to disregard the will of Odin, and had prophetic insight to predict the fate of others, falls into the pit devised for her by her own overweening pride, and her desire to be wedded to the best and first of men, but she so contrives her end that in her death she is united with her former love, whom after all she finds to have been the first and best of men. The tale should have ended with the funeral rites of Sigurd and Brynhild, but the Volsunga Saga was not designed as a tragedy ; it is the history of all the members of the fated Volsung race, and therefore the author proceeds with the very inferior lay of Atli in immediate succession to that of Sigurd. The conception that the story of Sigurd would not be complete without the punishment of his murderers, has united in the popular mind the lay of Sigurd and that of Atli as parts of one whole, much to the disadvantage of the story, and involved subsequent poets in strange difficulties when they attempted to compose one poem embracing the two events for mediaeval Christian audiences.

Great is the descent from the Volsunga Saga to the lay of the Horny Siegfried ("gehornte"), in which the strange half mythical adventures of Siegfried, without plot or result, attract the attention of the hearers by their extravagance. The young Siegfried is so fierce and intractable, that he desires to leave the house of his parents. The King, his father, assembles his counsellors, who advise that the unmanageable child should be sent forth to learn wisdom by experience, in the hope that if he were not slain he would be so much more the valiant man. He arrives at a village, engages with a blacksmith, whom he at first astonishes by his prodigious strength, but proves a troublesome guest by

his smashing the anvil to pieces. His master, desirous to get rid of him, sends him into the forest, hoping that he will be devoured by the dragon Regni; but Siegfried slays the dragon, cooks him, bathes in his broth, and thus becomes horny or invulnerable, save where a linden leaf had stuck between his shoulders. He returns, slays his master, and starts upon his adventures. He goes through various extravagant adventures, winning the hoard of the Nibelungs in such manner as is mentioned in the lay, and finally, after a monstrous combat, rescues the daughter of the King of the Burgundians from a dragon who held her captive. In the "*Garden of Kriemhild*," the character of Siegfried reaches a lower depth still, but that poem has no intimate connexion with the Lay of the Nibelungs.

In the Volsunga Saga, Sigurd stands forth as the Teutonic (or Northern) Achilles. "Of many words he was, and so fair of speech withal, that whensoever he made it his business to speak, he never left off speaking before that to all men it seemed full sure, that no otherwise must the matter be than as he said. His sport and pleasure was to give aid to his own folk, and to prove himself in mighty matters, to take wealth from his unfriends, and give the same to his friends. Never did he lose heart, and of naught was he afraid." In the latter poems, he is very much of a melodramatic hero; he seeks the combat for itself, he regrets its termination; he rushes into adventures, urged by the necessity of exhibiting the might of his arm; when he casts a giant to the earth, he picks him up, restores his arms, and smites him down again; he is presumptuous, insolent, and imprudent; he throws into the shade other Knights by his excessive renown: the very Kings whom he serves are jealous of his glory, and yet, what is the redeeming point in his character, while he travels on from adventure to adventure, he is forewarned that his daring will bring him to an early death.

This deterioration in the artistic conception of the hero is worthy of notice, for we find that in the Lay of the Nibelungs, the character of Siegfried varies with the sources from which the poet draws the subject of his several adventures.

Of scarcely less importance than the legend of Siegfried, for the comprehension of the origin of the Nibelungenlied, is the story of Attila as handed down among the Germans.

The King of the Huns has been invested by history with a very definite character; how far truthful may be a matter of grave doubt. The empire, having lost all virtue and energy, is in the last days of its corruption exposed to an invasion by the fiercest of barbarians. In the eyes of the ecclesiastical chronicler, Attila is the instrument in the hands of God to chastise the sinful world. "Thou art the scourge of God," a hermit is supposed to have said to Attila. "God has given to thee his sword, but he will take it again from thee and cause it to pass into the hands of others." It was to the glory of God to exaggerate the evils wrought by his appointed vessel of wrath, before whom the land was as the garden of Eden, but behind him as a howling wilderness. He was the author of the ruin and devastation of the Christian world; all ruined cities were laid to his door, as in England every desecration of a cathedral is attributed to Cromwell and his troopers. To complete the picture, the ecclesiastical legend contrasts with Attila, the man of sin, on every possible occasion, the man of mercy and piety, in the person of some saint who by miraculous interposition baffles the heathen conqueror, until at last the legend swells into the myth of Pope Leo, immortalised by the brush of Raphael.

The legends of the Teutonic tribes represent Attila in entirely a different character. In them he appears the ideal of sovereign power, mighty beyond all men, and terrible to those who oppose him; he is just and placable to those who obey him; he rules wisely and moderately, and seems an anticipation of the Great Frankish Karl.

This character of Attila is fully displayed in the story of Walter, to which reference is expressly made in the *Nibelungenlied*, and which largely contributed to the characters in the latter poem. The German original has been lost, but there exists a Latin poem in hexameters, of the end of the 10th or the commencement of the 11th century, either a translation or adaptation of the earlier work. Its popularity is proved by the number of copies which have been discovered, as well as by the fact that an ecclesiastic thought it worthy of translation into Latin. It commences by a description of the Huns, which, contrary to more modern ideas, is of the most flattering character. They are stated to be the dominant nation in Europe, and as to the nature of their empire the poet says:—

“Hic populus fortis virtute vigebat et armis
Non circumpositas solum domitans regiones;
Litoris oceani sed pertransiverat oras;
Fœdera supplicibus donans, sternensque rebelles.”*

Their King is the great Attila, who with an innumerable host starts upon his expedition into Gaul. The first nation into whose territory he enters are the Franks dwelling on the Rhine under their King Gibico. This monarch, by the advice of his counsellors, submits tendering gifts and hostages, which are at once accepted by Attila. The hostage given over to the Hunnish King is Hagan, a youth of renowned lineage, but not of royal blood, for the only member of the Royal family save the King is his son Gunther, as yet too young to be separated from his mother. Attila pursues his march into the land of the Burgundians, whose King in turn consults his advisers, and decides upon submitting to Attila, and tendering as an hostage his daughter Hildgund, then affianced to Walter the son of the King of Aquitaine. The ambassadors sue Attila for peace, and his reception of them is thus described:—

* Line 28.

“ Quos Attila ductor,
 Ut solitus fuerat, blandè suscepit et inquit,
 Foedera plus cupio quam prœlia mittere vulgo.
 Pace quidem Huni malunt regnare, sed armis
 Inviti feriunt quos cernunt esse rebelles.”*

Attila grants the Burgundians peace and proceeds to Aquitaine, whose King also submits, delivering up as his hostage his son Walter the affianced of Hildgund. Then without stroke stricken or blood shed the King of the Huns returns to his palace in the far east. We are assured that his treatment of the hostages was generous and royal ;

“ Exulibus pueris magnam exhibuit pietatem,
 Et veluti proprios nutrire jubebat alumnos.”

Such was the version among the Germans of the invasion of Gaul by the Huns.

After some years Gibico King of the Franks dies, and Gunther his son rules in his place. Gunther repudiates the suzerainty of Attila, and the news of this having reached Hagan, he flies from the camp of the Huns and regains his native land. Walter meanwhile has risen high in the service of Attila, and the latter, anxious to secure his fidelity, makes him the amplest offers of wealth and power ; which Walter, with a view to his subsequent treason, declines, while protesting his unshaken fidelity.

Hildgund received from the Queen favours as great as those enjoyed by Walter himself; she was entrusted with the keys of the treasure, and was almost Queen. But in spite of royal favour the lovers have never forgotten their engagement, and both tacitly cherish the design of escaping from the Court of Attila, and returning to their native country. It is arranged by them, when Hildgund meets Walter in the hall with a cup of mead, on his return from a victory, that Attila and his lords should be intoxicated at a banquet to be given by

* Line 88.

Walter, and that the two lovers should seize the opportunity to escape, having first loaded a horse with the choicest of the King's treasures. The plan succeeds, and after many days, journeying they cross the Rhine near Worms. Intelligence that a warrior and a woman evidently carrying valuable booty had passed the river is brought to the King Gunther. Hagan at once recognises his former comrade, from the description given by the ferryman, and warns the King that it was dangerous to meddle with so renowned a warrior. The confident and boastful Gunther says lightly that they are merely bringing back to him from Hunland some of the wealth which his father Gibico had delivered up to Attila, and with Hagan and a few other knights starts in pursuit. Meanwhile Walter had reached the Vosges (Waskberg), and was resting in a place which could be approached by one narrow strait only. The King's insolent message to surrender the treasure is rejected by Walter, and Gunther thereupon orders his knights to attack him; Hagan again interposes, offering further advice and unheeded information as to the danger of the conflict, which they were so lightly entering upon; but at last finding his counsel rejected, he refuses to fight against his former friend, and stands apart from the combat;

“Est in conspectu,” he says, “quem vultis: demicat,
omnis:

Comminus astatis, nec jam timor impedit ullum.

Exeuntem videam, nec consors sim spoliorum.

Dixerat et collem petiit mox ipse propinquum,

Descendensque ab equo consedit et aspicit illo.”

Walter holds good his post, and defeats every champion who advances against him, until at last Gunther remains alone. The King then addresses Hagan, appeals to his faith, and depicts the dishonour which would fall on the Franks, if a single warrior should thus defy and defeat

them. Hagan yields to the entreaties of the King, and consents to join in the assault upon his friend; at the same time he advises that Walter should be induced to leave his vantage ground, and for this purpose they pretend to abandon the field and retire to Worms. Walter, thinking that his enemies have departed, starts on his journey, but is again assailed by the King and Hagan, as soon as he reaches the plain. A terrific combat ensues, in which all the combatants are grievously wounded, Gunther loses his foot, Walter his hand, and Hagan his eye.

“Post quam finis adest insignia quemque notabant;
 Illis Guntherii regis pes, palma jacebat
 Waltherii, nec non tremulus Haganonis ocellus.”*

Peace is established between the parties. Hildgund binds up their wounds, the maimed King is sent back to Worms on a horse, Hagan and Walter drink wine together, and after much badinage renew their friendship and depart each on his way, but not before Walter has briefly sketched the character which Hagan bears in the German epopees.

“Est athleta bonus, fidei si jura reservet.”†

If we were dealing with history, it would be difficult to understand how the same Gunther who had lost his foot in fight with Walter could have subsequently entered upon the adventures of the Nibelungenlied, but in the ancient epic no such difficulties occur. The fight with Walter is distinctly referred to in the Nibelungen Lay, although Gunther and Hagan are still unmaimed. The importance of the connexion between the story of Walter and the Nibelungenlied, however, lies not so much in the facts of the legend as in the details of the character; although the story of Walter affords no facts to the latter epic, it has supplied it with the character of Hagan, and preserves in common with other poems the German idea of Attila.

*L. 1421.

†L. 1431.

In all early descriptions of the Court of Attila, the most conspicuous personage is the exile Dietrich the Ostrogoth, who, banished from his native country, finds a refuge for himself and his train among the Huns. The adventures and character of Dietrich or Theodoric marked him out as the hero of romance. He was not only the greatest and wisest, but also the bravest of the Ostrogoths; to his personal valour was due the defeat of the Gepidi and the victory of Verona, with which city his name was for ever after connected by tradition. He had endured for many years suffering and peril before his invasion of Italy; after the victory of Verona, he was confronted at Ravenna by Odoacer, while the Burgundians poured into Italy from the west; at last the war was closed by the prolonged strife around Ravenna (the Rabenschlacht), which lived in German tradition as the great battle of the nations. By a curious inversion of the poets, he was supposed to have been an exile from Italy, which he conquered, and to have sought refuge in the region from which he had originally come. The lands north-east of Italy were remembered as the realm of the great Attila; and where could Dietrich have sought refuge save in the Court of the King of Huns? It is from the Court and with the aid of Attila that he returns to reconquer his kingdom; and in all descriptions of that Court, the renowned Ostrogoth was never omitted. In German legend he is the hero of regulated valour. His heroism consists in the complete balance of external and moral qualities; if he is terrible in combat, he is reluctant to engage in unnecessary or wanton strife; if he claims his own against those who have injured him, he never forgets his duties to his superior lord. Nothing proves more completely the profound impression made by Attila on the German mind, than the conduct of Dietrich to that King, as painted in the German Epic; in the presence of the Hun, the Teutonic national hero never loses the re-

collection of his duty as a vassal to his suzerain ; with the memory of Dietrich has been associated that of his faithful follower Hildebrand, who appears in the lay of Hildebrand and the Heldenbuch.

As Dietrich has been thrown back into the times of Attila, so he is also brought into conflict with Siegfried himself ; they encounter each other, to the disadvantage of the latter, in the Rose Garden of Kriemhild, and again the mystical Siegfried appears among Dietrich's enemies in the fight of Ravenna.

It is not to be doubted that innumerable poetic traditions, of which all memory is lost, may have contributed their share to the tale of the Nibelungs in its latest form. A further knowledge of such ancient ballads might explain why so many characters, of whose antecedents nothing is told us, are introduced as well known to the readers ; but it is our present object not to inquire into the "origines" of the German poem, but rather, taking the known antecedent works, to consider how it was constructed with reference to them.

The popularity of the story of Walter could not fail to exercise an influence over the tale of Sigurd or Siegfried. An uncritical audience is not offended by any inconsistencies in the facts of the lays to which it listens. The most palpable contradictions as to time or place pass without observation. Characters to whom they are accustomed may be brought into connexion, however remote in date or locality. The heroes may suffer wounds of the most amazing nature, and yet be represented as engaging in fresh combats unmaimed and undaunted. The precious vial of balm, a single drop of which restored the wounded champion to his former vigour, was a later concession to the growing scepticism of the hearers. But it is essential in national poetry that the characters should be on the whole consistent. It was impossible that two popular lays

should co-exist, if the hero of one be the coward of the other. Attila could not be conceived as existing under two contradictory forms. In the original Volsunga Saga, he was indeed great and powerful, but the basest of traitors, who, by lavish promises, induced his wife's brethren to visit his court with the intention of entrapping and plundering them of the wealth for the seizure of which they had already paid her full atonement. In the Attila legend, as exhibited in the story of Walter, he is the great magnanimous ruler, averse to unnecessary bloodshed, generous of his wealth, and beneficent to all who encountered him. The Atli of the Volsunga Saga being once considered identical with the Attila of the tale of Walter, it was necessary that the manner in which the death of Siegfried was avenged should be conceived in an entirely new fashion. The slayers of Siegfried meet their death at the court of Attila, but not by the machinations of the just monarch of the Huns; the widow of the slain hero, not her second husband, contrives the ambush. In the early form of the story, Gudrun, by the token of the wolf hair tied to the ring, and by her runes, strove to warn her brethren of the intended treachery, and when, despite of her warnings, they fell into the ambush, she attired herself as a warrior, and fought by their side, and finally, when she failed to save them living, she avenged them when dead. In the later story, the widow of Siegfried herself devised the treachery, without the knowledge of her noble husband, using his hospitality as the means of luring her kinsmen within her power. This form of the legend must have arisen at an early period, for, according to Saxo Grammaticus, a minstrel sent in A. D. 1030, with a treacherous invitation, not daring to violate his fidelity to his employer, yet compassionating the intended victim, sung by way of indirect warning the lay of Kriemhild's treachery, "*erga fratres.*"

The legend of Siegfried, in its earliest form in the Edda, is strangely connected with the Rhine; it is in the water of that river that he tested the sword forged for him by Regin, before he essayed to slay Fafnir. After he had slain the worm, he fared southward to the land of Franks. To no place on the Rhine was the memory of Siegfried so attached as to the City of Worms; the name of Worms itself was derived, in popular belief, from the worm Siegfried had slain. There was once to be seen the ancient Riesenhaus and other memorials of Siegfried; his lance, ninety-eight feet long, was hung in the cathedral; his statue of gigantic size stood on the Neue Thurm; and there also stood in ancient times Siegfried's Chapel, of archaic architecture. To Gunther, the King of Worms, in the days of Attila, was attributed the deeds of Gunnar, and he was furnished with two brothers similar to those of Gunnar in the early legend. Hagan, so closely connected with Gunther in the story of Walter, could not be omitted from the new form of the legend, and his character, "as a noble warrior could he keep his faith," naturally suggested that he should be the chief actor in the treacherous slaying of the German Achilles. The court of Attila could not be conceived without the presence of Dietrich, and he naturally became one of the actors in the final denouement, but only in such wise as suited the faithful justice-loving Ostrogoth. The death of the children of Attila by Kriemhild was an essential part of the original story; this incident was retained, but the murder was transferred from Kriemhild, who had now no motive to commit it, to Hagan, the author of all evil. Kriemhild, the sister of Gunther, assumes the part of Gudrun, either as the Burgundian princess, saved by Siegfried from the dragon, or as the daughter of King Gibico, holding her court in the Rose Garden of the Rhine.

The introduction of Christianity also altered the legend

in many particulars. The history of the fatal Fafnir hoard ceased to be intelligible. The names of Odin, Loki, and Hœnir, the three gods who inadvertently had slain the otter, were forgotten. The character of the warlike prophetic maiden, Brynhild, was incomprehensible, and the pagan funeral rites of Sigurd and his first love would have excited among Christians horror, not admiration. The mysterious changes from the human to the animal form, so common in all primæval myths, had ceased to be a portion of the supernatural machinery of poetry, as also the mystic spells by which one champion could assume the semblance of another.

The supernatural of the older story was so essential a portion of the work, that its rejection required much of the plot to be recast, and new motives assigned to the characters. It was also necessary to alter the surroundings of Siegfried, to adopt the character to a more modern audience. The knights who followed the great Otho or Frederick Barbarossa into Italy could not conceive a King, with the entire of the magic treasure slung before him on his horse, traversing alone the northern uplands, and arriving at the wooden houses of chiefs by courtesy styled Kings also, nor as launching in his galleys on half-piratical adventures. A King in their ideas was one surrounded with all the state of a Monarch, clad in gorgeous garments, and followed by countless knights with waving banners. Siegfried could no longer start on his adventures alone and unarmed, lurk, watched only by one follower, in an ambush to slay the dragon, or hire himself to the smith of a village. He must begin his adventures from the Court of his father with knights and squires, and therefore the history of his father's death and his thralldom at the Court of Hjalprek would be altogether rejected. The mode of combat had also in the meanwhile been entirely changed. The early story knew nothing of

the onslaught of a champion with couched spear, and the pastime of the tournament was of recent invention. The later poet has to introduce adventures suited to the mode of battle of his period, and to represent the champions encountering in the mimic conflicts fashionable at his time. In the Bayeux tapestry the Norman knights advance holding on high the lance grasped in the middle; to a later age belongs such a combat as that between Hagan and Gelfrat, where the knights aim the stroke at each other's bucklers, and the Burgundian in the shock is swept over his horse's tail.

The spirit of Feudalism had in the 10th and 11th centuries become the basis of social organisation. The public of that date conceived the social relations as founded almost exclusively on fealty, and it was natural that popular heroes should conform their conduct to the received code of personal loyalty.

Thus the story of Siegfried, if it was to continue popular, had to be subjected to numerous influences which tended to reject large portions of the older form of the legend, to alter the course of the narrative, to substitute new motives for the action, and to introduce a more modern local colour. The selection as the subject of one single poem (or recitation) of the events commencing with the marriage of Siegfried, and terminating with the death of his murderers, would also necessarily introduce certain modifications of the plot. The Volsunga Saga is not confined to the story of Sigurd alone; it is a quasi-historical narration of the destinies of the whole family of the Volsungs, of whom Sigurd is the greatest and most illustrious; there is no effort to give any unity to the history of the exploits of, and revenge for, the death of Sigurd. The lay of Atli is narrated after the lay of Sigurd, but there is no attempt to combine or harmonise them artistically. The lay or history of Sigurd is complete in itself, and is wound

up by the suicide of Brynhild, and her burning on the same pyre as Sigurd, and the narrative of the fate of Gunnar is unconnected with the preceding tale. If the subject had been taken in hand by a dramatist, the plot would not have been carried on beyond the death of Brynhild; and at this point, the lay of Sigurd in the Edda, which is essentially a drama, appropriately terminates. The audience to whom an epic poem is recited have, however, an innate desire to have the whole subject satisfactorily wound up, and all the characters disposed of, as the modern reading public require in a novel full details of the marriage of the hero and heroine.

The genuine epic does not end in a catastrophe. The *Iliad* does not stop short at the death of Hector, and the lay of Roland brings Charlemagne back to Paris, and concludes with the baptism of the Queen of Spain. There is no more conclusive evidence of the purely artificial character of the *Æneid* than its abrupt termination at the death of Turnus. An epic poet taking up the tale of Sigurd would therefore be forced to make the death of Gunther, not the death of Siegfried, the conclusion of his work. This form of the poem is embarrassed by the difficulty that thus the chief characters must disappear in the middle of the plot, and the subsequent part of the story be confined to the secondary personages alone. It was therefore necessary that some new characters of weight should be introduced into the lay of Sigurd, and that some of the characters of the earlier tale should be strengthened, and carried on into the portion of the work founded on the lay of Atli, so as to give a unity to the whole; this is effected by making the action of the both portions centre upon the character of Hagan, introduced into the story of Siegfried from the lay of Walter; by giving a greater weight to that of Kriemhild; and by increasing the number of the actors in the second part by the addition of Rudeger and Dietrich.

In this manner further alterations in the original tale were introduced, to meet the artistic exigencies of the subject. But as the alterations in a national epic are gradual, and in accordance always with the public taste and ideas, there is no sudden change sensible to the audience; and although the story may in process of time be wholly transformed, there are retained throughout certain traditional epithets and adventures and certain leading incidents and expressions which have obtained a hold upon the memory of the audience, and are always understood to occur at certain points of the narrative; thus fragments of the older version appear in the later editions, although quite inconsistent with the form which the story has subsequently assumed. The same conservative feeling of the public appears in the English pantomime, which rigidly maintains the characters of the Harlequin and Pantaloon with peculiarities of dress and manner, as to the origin and meaning of which the audience are now entirely ignorant, but the absence of which would probably cause the failure of any such performance. The lay commences, as do so many of the mediaeval epics, with a disclaimer by the poet of any intention of telling a new story; it is the good old tale with which his hearers are as well acquainted as himself, which he proposes once again, but never too often, to recount to the descendants of the heroes of the narrative. We are then introduced to the Court of Burgundy, and first of all is described Kriemhild the sister of the Princess of Worms. The prominence given in the first adventure to the princess is evidently connected with the poet's intention of combining in one work both the death of Siegfried and the revenge taken upon his murderers: the subject of the lay is essentially the revenge of Kriemhild, and the development of her character is the main connexion between the first and second parts. She appears first as a coy and

gentle maiden, averse to marriage; then she tells her mother,

“Never to love, assure thee, my heart will I resign,
I'll live and die a maiden and end as I began,
Nor (let what else befall me) will suffer woe for man.”*

During the early portion of the action she remains apart in her bower, but seeing Siegfried day after day in all his glory in the Castle Court below, gradually and insensibly she gives up her heart to him. She for the first time meets Siegfried at the festivities held on his return from the victory over the Saxons, and although evidently enamoured of him, her whole conduct down to their marriage is described as full of unusual dignity and reticence. She accepts his hand in apparent obedience to the desire of her brother, and in fulfilment of his vow, but after her marriage she gives herself up entirely to her love for her husband. The first indication of the vigour of her character is her zeal for his honour and the determination to maintain her rank, not as the sister of Gunther, but as the wife of Siegfried. It is her desire to secure his safety, which induces her to betray the secret of the mode in which he can be successfully assailed. By his death she is not merely widowed, but her grief is aggravated by the treachery which made her the instrument of his destruction. Bereft of her husband and robbed of his treasure, she apparently submits to her destiny, but by constantly thinking of her lost love and of her own wrongs the whole of her nature becomes gradually poisoned: revenge for Siegfried's death is the sole object of her existence, a purpose masked by exaggerated submission so long as there is no hope of its realisation. When asked in marriage by Etzel (Attila) she at first shrinks from the idea of a second union, but suddenly perceiving that she may thus find a means of vengeance,

* In the extracts from the *Nibelungenlied*, the English version of Mr. Lettsom has been followed.

she consents, and binds the Hunnish ambassador in a promise, which she intends to make use of subsequently. She lures her brothers to Etzel's court; at first she would be content with the destruction of the chief criminal, but driven to the choice of either letting Hagan escape or of involving in his ruin not only Gunther but also her younger brother, who innocent of her husband's death had ever been true to her, she accepts the latter alternative. As the battle goes on, under the influence of her ruling passion she lashes herself into frenzy, and is gradually developed into a fury: the gentle princess of the earlier adventures finally revels in cruelty and bloodshed, and, to satisfy the necessities of poetic justice, is in the end solemnly executed, rather than slain, by the aged Hildebrand.

The ferocity of Kriemhild in the conclusion of the story is in accordance with her character in the early legend; but the detailed and elaborate descriptions of her conduct, down to the death of her husband, are skilfully introduced to heighten the effect of the second part, and at the same time to create a sympathy with her up to a certain point. The unity of her character does not lie in representing her as acting continuously in the same manner and from the same motives under varying circumstances, but in a continued and consistent development, and the corruption of a noble mind by the influence of one dominating idea; her identity consists in her always surrendering herself to some one overruling sentiment; she is at first given up to maiden modesty; she next unreservedly abandons herself to her love for her husband; she devotes herself absolutely to his memory; her love slowly corrupts into desire for revenge, and when this passion has once obtained mastery over her, under its influence she gradually loses every semblance of her former self; and nevertheless, she is one and the same Kriemhild throughout.

The character of Gunther in the Lay of Walter and Gunnar in the Volsunga Saga is very similar, but the Gunther of the Nibelungenlied resembles the latter more closely than the former; physically brave, and possessing all the qualities then deemed kingly, he is at once presumptuous, and a moral coward; though naturally generous and truthful, he can be driven into evil by the influence of a stronger will, but when once bent upon designs beyond his power, or blindly rushing into danger, he is insensible to the advice of wiser counsellors; when brought face to face with the danger which he first despised, his heart fails within him if action has to be taken, but when driven to the wall, his physical courage revives and enables him at least to die as a hero. The resemblance between the Gunnar of the Volsunga Saga and the Gunther of the Lay of Walter may have facilitated the confusion of the two heroes. The conduct of the former in essaying the winning of Brynhild, and, on failing to ride through the magic fire, procuring the aid of the disguised Sigurd, resembles the description of the latter pursuing Walter, with the remark that the treasures surrendered by his father were being brought back to him from Hunland, and in despite of Hagan's warning; and subsequently, when his knights had been worsted, not attempting the adventure himself, but employing the assistance of his reluctant follower.

Gernot and Giselher correspond in the Nibelungen as the brothers of Gunther to the Hogni and Guttorm of the Volsunga Saga. In the Nibelungenlied, Hagan assumes the part of Hogni in the Volsunga Saga, and Gernot is therefore left a rather less colourless character. Although in the Nibelungenlied, Giselher is in the first adventure described as a chosen champion, yet the tradition required the younger brother to be "young and of little knowledge, and clean out of all oaths whatsoever." In the early legend the younger brother is egged on to the murder

of Sigurd, but as in the later edition of the story the murder is attributed wholly to Hagan, both in conception and act, the youngest brother is represented as quite a youth, devotedly attached to his sister, and always ready to champion her. Of the Burgundian knights who are detailed as forming the court at Worms, the names were probably familiar to the audience, but, with the exception of Hagan, they present no individual character, although it is evident that Ortwine, Dankwart and Folker were personages well known to the hearers, filling distinct rôles in the national traditions. Hagan, who is introduced directly from the Lay of Walter, is practically the hero of the poem, in the same sense as is Satan that of *Paradise Lost*. It was certainly never the intention of either of the poems that Satan or Hagan should assume the part of the protagonist, but each character, developed by the necessities of the work itself, overshadowed the other personages. Siegfried perishes early in the action, and in the second part is quite forgotten by the reader except as the cause of the revenge of Kriemhild; Rudeger, Dietrich, and Etzel are introduced into the poem after the death of Siegfried, like actors who appear in the fifth act only. The other Burgundians, both princes and knights, are either too weak or too shadowy to attract our prolonged sympathy. If Kriemhild had been the only link between the two parts, her revenge in the second part would have sunk into a mere slaughter of second-rate personages, none of whom had sufficient energy to offer resistance requisite to account for the frenzy to which she was ultimately to be driven. Some one character was demanded who should be at once the especial object of her hatred and at the same time possess sufficient strength to render her revenge tedious and difficult. It was impossible to promote Gunther to this rôle, for he never would have accepted the invitation to Etzelburg, unless he had been presumptuous and unwise. Gernot and Giselher could not

be used for this object, for their innocence of the murder was requisite for the purpose of enhancing the catastrophe. The difficulty was solved by the introduction of Hagan from the Lay of Walter: that he was taken from this poem is evident from Etzel's reference to him on his arrival at the Hunnish Court.

(1812) "Of all that touches Hagan I've known for many a year.

Of old two noble children my hostages were here,
He and the Spaniard Walter; here each grow up
to man.

At last I sent home Hagan; Walter off with Hildgund ran."


And thus also Hildebrand asks him

(2423) "Who was it that in the Waskberg upon a buckler sat,

While of his kin so many the Spanish Walter
slew?"

His character is marked well in the earlier and later lay, as a counsellor wise and far-seeing, entirely opposed to speculate in possibly unprofitable adventures, but, when once committed, willing to carry them through by any means whatsoever; he neither fights nor does evil from love of combat or innate wickedness, but having a certain thing to do, he adopts the readiest method with entire indifference to right or wrong: he is not only physically valiant, but morally brave in the highest degree, for he never deceives himself as to the consequences of his actions, and clearly discerns the destiny which he meets with a scoff: pitiless so far as it was necessary to effect his purpose, he sympathises with those noble qualities in others which he himself lacks; of the traits of his character, that which is the most profoundly immoral is the scornful self-assurance, the cold sarcastic insolence, with which he laughs at fate and fortune,

for they can do nothing to him which he cannot endure: tall, black haired, with bright swift-glancing eyes, superb, but breaking sometimes into scornful rough pleasantry, he is admitted by all, even by the Ostrogoth himself, as the beau ideal of knight and noble. Such a being, hard and bright as steel, if without a virtue or weakness, could command no sympathy. His struggle for existence against fate would either seem an effort to avoid justice or a combat waged by some evil spirit. He is therefore given one human virtue, the cause of his ruin. He possesses the virtue of personal loyalty to his lord, a quality in the feudal times most highly valued. His dog-like fidelity to his King must have roused the sympathies of the followers of the house of Hohenstaufen, to whom the tale may have been sung. Hagan, the wise and foreseeing, is by the invisible link of feudal duty, forced to follow the fortune of the presumptuous and morally cowardly Gunther. Thus upon the character and fate of Hagan the interest of the latter part of the poem turns. It is the feudal position of Hagan which gives the motive of his actions in the earlier portion; without any personal animosity to Siegfried he takes up the quarrel of the Queen, and having resolved to slay him, carries it out in the surest and safest manner. He warns Gunther against allowing the widow to retain her treasure; against the proposed marriage of Kriemhild with Etzel; against the journey to Etzelberg; his advice is always rejected, and yet, though he knows that he of all can never hope for mercy, he follows Gunther to the Hunnish court; the swan maidens predict to him but what he already knows; the decree of destiny thus once pronounced, he endeavours to deceive or mislead himself by putting into danger the only person whose life it was predicted should be spared; when all his forebodings are confirmed by supernatural predictions, he accepts his position, resolving that, fall though he must, he will wrestle with fate to the last, and make those who slay him rue the



deed. As the toils gather closer round him, his ability never fails him, his courage never falters ; he defeats fraud by cunning, and returns blow for blow ; when bound at the feet of the Queen, his nimble mind is devising how he may make her victory unfruitful, and contrives that the fated hoard should lie hidden in the Rhine for ever. An audience of the 12th century would have regarded Hagan more leniently, or rather more favourably, than one of the 19th ; much would have been forgiven him because he was ever true to his lord. The century which saw the murder of Thomas A'Becket would not have regarded the slaying of Siegfried as a very serious crime.

By the introduction of Hagan and the expansion of the character of Kriemhild, by the contest between them, at first suppressed, but well understood by both, afterwards bursting forth in ever increasing fury, the revenge of Kriemhild is changed from an execution of criminals, or a treacherous butchery (according to the light in which it is viewed), into a tragedy of the gloomiest and grandest nature.

The poem opens with the dream of Kriemhild, the meaning of which is explained to her by her mother. This adventure corresponds to the dream of Gudrun in the *Volunga Saga*, but inasmuch as the author of the *Nibelungenlied* has thrown away all the earlier history of Brynhild, it was necessary that Uta should be the interpreter.

The second adventure introduced Siegfried, not as a roving adventurer, but as a prince surrounded by his knightly followers ; for this purpose his father, Sigmund, is represented as still living and reigning at Xanten on the Rhine ; consequently the tale of the thraldom of Siegfried at the house of Hjalprek must be rejected, and, as he is of equal rank with the Burgundian princes, some means contrived to justify Brynhild in afterwards insulting Kriemhild, by reference to the difference of position between her husband and her brother. The constant assertion of the kingly

rank of Siegfried, in the commencement of the poem, is made prominent to distinguish him from the other knights at the Court of Worms. Hagan describes him (107), "of noble kin is Siegfried, a mighty monarch's son." Siegfried himself reproaches Ortwine with his inferior position, saying (122):—"Thou dost not venture 'gainst me to lift thy hand; I am a mighty monarch, a monarch's man art thou." The ladies of the court, in answer to inquiries as to who he may be, speak of him as the King of Netherland. The author was perfectly aware of the older story of the adventures of Siegfried; for Hagan, when asked who the lately arrived stranger may be, tells the story of his winning the hoard of the Nibelungs, and of his bath in the dragon's blood as from the Horny Siegfried; and, evidently to obviate the discrepancy between Siegfried, represented as a prince with castles, knights, and treasure, and the Siegfried of popular tradition, riding through the wood in search of strange adventures, two verses are appended to the end of the second adventure to explain the inconsistency, to the effect that during his father and mother's life he went forth upon adventures.

The conduct of Siegfried on his arrival at Worms is inconsistent with his subsequent character, and the subject of his journey; he says nothing of the princess, hectors fearfully, and proposes to fight with Gunther, staking his kingdom on the issue. This extraordinary proceeding is probably derived from some of the stories of Siegfried, in which he supported the rather unfavourable character attributed to him in later German tradition; on the other hand, the noble and conciliatory conduct of the Burgundian princes is an evidence that popular opinion did not run against the slayers of Siegfried, and that in reading the latter portion of the poem we are not mistaking the poet's intention in sympathising, not with Kriemhild, but rather with the foredoomed Burgundian lords.

The conduct of Siegfried, after he is appeased, is difficult to understand; he apparently forgets his intention of wooing Kriemhild, nor meets her until, at the advice of Ortwine, the ladies of the court are invited to assist at the festivities held to celebrate the victory over Ludgast and Ludger; the first allusion to an union between Siegfried and Kriemhild comes from Gernot. Siegfried himself first enters on the subject when requested by Gunther to aid him in his suit to Brynhild.* The management of this portion of the poem is difficult to understand, and very contrary to the conduct of affairs in the mediaeval epic. In the Volsunga Saga, Sigurd abode for five seasons at the house of Giuki, before that King offered him his daughter. In the old form of the story, this delay is fully accounted for, because Sigurd was in love with Brynhild, and although Grunhild's magic draught had destroyed the memory of his first love, he does not desire to wed Gunnar until she is offered to him by her brother. In the Volsunga Saga, Sigurd brings ruin upon himself and his friends, by his abandonment of Brynhild, which justifies her subsequent indignation. In the Nibelungenlied, Kriemhild is the first and only love of Siegfried; but it may have been a portion of the legend, which could not be disregarded, that the bride was not sought for by the hero, and that long delay occurred before he accepted her. The episode of the war with the Saxons and the Danes is no part of the original story, yet it is but an expanding of the statement that Sigurd and his brother-in-law "did many great deeds, slew many kings' sons, and no man has ever done such deeds of prowess as did they, and then home again they came with much wealth won in war." The later date of this portion of the poem is evident enough, from the tilting of Siegfried and Ludgast, and the description of the charge of the Burgundians; of which the poet says:—

* Although he begins to make love to Kriemhild as early as verse 310.

(238) "Before their levelled lances was many a saddle
void:"

a line which reminds us of the Lay of the Cid.

In the sixth adventure, Gunther resolves to make love to Brunhild, against the advice of Siegfried: it is to be remarked, that although no previous allusion is made to Brunhild, nor a hint given of any previous connexion between her and Siegfried, it is assumed by the poet, because he knew his hearers would assume it, that there had been some previous connexion between her and Siegfried. Hagan at once advises that Siegfried's aid should be sought.

(341) "For none so well as Siegfried knows this redoubted
Queen."

When they start, Siegfried assumes the office of pilot, saying (390), "Well, all the course I know." Gunther naturally is amazed at Isenstein, not so Siegfried: (394) "It was only known to Siegfried of the adventurous band." Siegfried recognises Brunhild at the window of her castle, and the maidens of Brunhild recognise him. On the other hand, the poet rejects the relation which existed between Brynhild and Sigurd, in the original tale; she is not his cast-off love, who had borne a daughter to him, but a virgin queen who will yield to none who cannot subdue her in arms. Learning that Siegfried has arrived she imagines that he has come to woo her.

(429) "If far-renowned Siegfried aspire to be my mate,
And is hither come to woo me, on the cast is set his
life;
I fear him not so deeply, as to yield me for his wife."

There is no allusion throughout the lay to the fact that Brunhild ever loved or was jealous of Siegfried.

The turning point of the story in the popular mind was an insult offered by Brunhild to Kriemhild, with reference to the inferior position of Siegfried in regard to Gunther. The whole narration, down to the expedition to Isenstein, turns upon the regal station of Siegfried; and the mere fact of doing homage was not one which, in the middle ages, involved any actual social inequality. There was a vast difference in being a thrall, in the sense of the *Volsunga Saga*, and doing homage within the practice of the twelfth century. It would seem that it was impossible to escape the necessity of making the action turn upon the specific insult of treating Siegfried as "a thrall," and the very awkward device is introduced of making Siegfried, wholly unnecessarily, appear at the court of Brunhild as "the man of Gunther." The poet evidently thinks it necessary to reiterate this assertion; Siegfried himself proposes the device:—

(399) "Let but this single story in all your mouths be found,
That Gunther is my master, and I am but his man,
To give him all his longing there is no surer plan."

although there is no trace of the subsequent stratagem having reference to this description. Twice afterwards Siegfried alludes to it, and the Queen is made to say:—

(436) "If he's thy master, and thou, it seems, his man,
Let him my games encounter, and win me if he can."

These passages are all elaborately introduced to give a colour for the subsequent insult of Brunhild.

In the combat which ensues, we meet with the cloud-cloak* which Siegfried, in the later form of the legend (*The Horny Siegfried*), won from Alberich, the dwarf; and the

* Unless the *healm of awe*, in the *Volsunga Saga*, meant something similar to the cloud cloak of the latter

poem, it is, however, never alluded to again in the earlier legend.

whole combat, a mere trial of brute force, is inferior to the test of the burning circle of fire by which proof was made of "the first and best of men." When Siegfried, concealed by the cloud-cloak, starts for the land of the Nibelungs, to rally assistance for Gunther, we lose all connexion with the Saga, and have a repetition of the combat of Siegfried with the giant and the dwarf, Alberich, from the Horny Siegfried. The return of Gunther, the joustings and rejoicings, are of the ordinary class, and might form portion of any poem of the period. When Brunhild espies Kriemhild sitting beside Siegfried, she is at once indignant, but the verse which describes her emotions evidently formed part of a narrative which attributed her wrath to jealousy, not to pride :—

(636) "But woe then was the maiden, when Kriemhild she
 espied
 Sitting by valiant Siegfried ; she straight began to
 weep,
 And her bright vision darkened with shame and
 passion deep :"

although in her conversation with Gunther she says that her shame was to see Kriemhild sitting by a "lowly vassal."

Throughout the extraordinary scene in Gunther's chamber, Siegfried feels no love for Brunhild ; he dashed her about the room, and punished her without the slightest regard to her feelings, but true to the old story takes away the ring and girdle. The whole point and meaning of the taking of the ring is lost in the more modern version. In the Saga, it is the dwarf Andvari's ring, with which Odin had been forced to cover the last hair of Otter ; which Sigurd had won from Fafnir, and given as the token of his love to Brynhild ; the emblem as it were of the fatal hoard which entailed ruin on the possessor : thus Sigurd, in the very act of betraying his first love, robs her of the pledge

of affection, and, adding insult to injury, gives it to the woman for whom he had deserted her. A ring was felt to be necessary to the denouement, but the point of the incident was forgotten.

In the subsequent adventures, the wrath of Brunhild still turns upon the inferior position of Siegfried, in contradiction to the assertion of her husband, and the appearance of Siegfried as King of Netherlands, accompanied by his father. She continues asserting, in a strange manner, the duty of Siegfried to do service to her husband, and it is upon this point that she and Kriemhild quarrel. Substituting a mere question of feudal supremacy for the assertion by Brynhild, in the *Volsunga Saga*, that her lord was the first and best of men, the dispute in the latter poem is merely an expansion of that in the earlier tale. The nature and subject of the dispute was fixed by tradition, but the details varied with the changing forms of society, and the difficulties which a poet encountered, who had for evident reasons commenced the story in the middle, and left out the original "*fons et origo mali*." But in the story as told in the *Nibelungenlied*, still remain verses which have no meaning save as portion of the earlier story. Thus when the Queens dispute, the following passages occur :—

(865) "Then out spake fair Kriemhild (full of wrath was she),
 Could'st thou still be silent, better 'twere for thee,
 Thou hast made thy beauteous body a dishonoured
 thing,
 How can a vassal's leman be consort of a King?"

(866) "Whom here callest thou leman?" said the Queen
 again,
 "So call I thee," said Kriemhild, "thy maidenly
 disdain
 Yielded first to Siegfried, my husband, Siegmund's son,
 Ha! it was not my brother first thy favours won."

When Kriemhild shows the ring, she says:—

(873) "E'en with this gold I'll prove it, that on my hand I wear ;

'Twas that Siegfried brought me from thee, when by you he lay."

In the older story these assertions would have been perfectly true, in the latter form they have no meaning at all. Brynhild, in the Saga, has been cruelly wronged in the tenderest point; she had loved Sigurd, had been abandoned by him, had sworn to marry none but the first and best of men, had been tricked by her former love, and handed over to a very second-rate warrior, whom she imagined to be the first and best. Under these circumstances she is driven mad, by mingled love and hatred for Sigurd. In the *Nibelungenlied*, the insult is conveyed in precisely the same words, but the indignation of Brunhild turns upon entirely different causes. The insufficiency of the cause for the result, which strikes us, would not have occurred to hearers of the eleventh or twelfth century; an insult to the Queen would then have been quite sufficient cause for bloodshedding, and a treacherous murder under the circumstances would have been nothing very remarkable. In the subsequent discussion as to the murder, the conversation of Gunther and Hagan resembles that of Gunnar and Hogni, except that the parts are completely inverted. The reason of this is evident; it was the poet's intention to make the second part turn upon the struggle between Hagan and Kriemhild. To justify the fury of Kriemhild, Hagan must be the contriver and actor in the deed which deprives her of her husband. The King, in both editions of the story, is represented as morally weak; this characteristic in the old story he exhibits by yielding to his wife, and agreeing to the murder; in the later edition he is represented as being dragged on by Hagan, who is himself to do the deed. The mode of the slaying of Sigurd is different in the two edi-

tions of the story, but it is not to be supposed that there was any novelty in the mode in which it is detailed in the *Nibelungenlied*. The prose note to the lay of *Brynhild*, in the *Edda*, expressly refers to the different forms of the story:—"The Dutch folk say that they slew him in a wood," and such was probably the form of the legend familiar to the ears of a German audience. The *Nibelungenlied* contains the later legend of *Siegfried's* invulnerability, and the treason by which *Hagan* found out the vulnerable spot. This tale may have formed portion of the *Horn* *Siegfried*, if it was ever continued beyond the point at which it now terminates. We may be certain that *Siegfried's* adventures, after his arrival at *Worms*, were familiar to German legendary poetry.

The murder of the infant heir of *Siegfried* is omitted from the latter poem, and is further expressly contradicted by the statement that the child was left behind by its father and mother, on their departure from the Netherlands.

The fashion in which the legend had been altered necessarily involved the poet of the *Nibelungenlied* in considerable difficulty as to the mode in which *Brunhild* was to be disposed of. In the original story she slays herself after the death of *Sigurd*, thus escaping from her position as wife of *Gunnar*, and uniting herself in her death with her first and true love. This suicide of the heroine, and the savage funeral rites with which she was buried, had probably become distasteful to a later audience, and would have artistically injured the poem, for the death of *Sigurd* is sufficiently avenged by that of *Brynhild*, and the slaughter of the subordinate criminals would be a feeble termination of the story. The old legend naturally never again alludes to the Queen of *Gunnar*, and it was impossible with any regard to legendary truth to involve her in the final massacre; in the later epic she is, therefore, simply let drop out of the story, although subsequently alluded to as living in seclusion.

The character of Brunhild is thus suddenly thrown aside, although her continued seclusion forces the poet to reject the scenes in the old story, in which the second wife of the King is introduced as dissuading him from his visit to the Court of the Huns.

In the Volsunga Saga, Gunnar and Hogni make compensation to Gudrun for the death of her husband ; and all her wrongs having been atoned for, in the end of the tale she stands by and revenges her kindred. In the Nibelungen, a trace of this portion of the legend remains in the reconciliation of Kriemhild with Gunther, but up to the date of her starting for Hungary, every opportunity is taken to represent her as still suffering wrong and injustice, by the advice of her arch enemy, Hagan.

The Nibelungenlied retains some portions of the story lost in the Volsunga Saga, such as the story of the casting of the treasure into the Rhine, and possibly the scene of the dead body bleeding in the presence of the murderers.

The portion of the poem which intervenes between the death of Siegfried and the journey of the princes to Hunland would appear to be that least based upon antecedent ballads. It has very little of the tone of epopee about it, and consists of scenes devoted to the development of the characters of Hagan, Gunther, and Kriemhild, all of which could not have been conceived until after the introduction of Hagan into the story. This part of the work seems to be that which was most consciously and consistently composed with reference to the present catastrophe.

The slaying of Gunnar and Hogni is comprised in the Volsunga Saga in some eight pages of the English translation, while in the Nibelungenlied 704 verses or 2816 lines are devoted to the history of the journey and the final combat ; yet although overlaid by a mass not only of ordinary descriptions of fightings, joustings, and feastings, but also of entirely new incidents and characters, the main points of the old legend may be discerned. The warning dream

and the parting at the water edge remain, although much altered. The demand made by Kriemhild of Hagan for her lost treasure on the arrival of the Burgundians, an incident inconsistent with the rest of the story, reflects the similar demand of Atli in the *Volsunga Saga*. That the child or children of Kriemhild by her second husband should perish was an established fact in the story, but the date and manner of the death of Etzel's sons are adapted to the altered form of the plot. The mode in which Gunnar devises that Hogni should be slain, to prevent the secret of the treasure being disclosed is retained, but the characters are transposed, Hagan in the latter part taking the part of the King.

In the portions of the story rejected there is evidence of the decrease of ferocity which marks a Christian (or perhaps a quasi-Christian) as contrasted with an early pagan audience. The death of the thrall Hyalli is rejected; it is the head, not the heart, of Gunther which is brought to Hagan in prison; Gunther dies by the sword, not in a wormclose. The Thyestean banquet at the end of the lay of Atli is no longer the conclusion of the story, and Kriemhild dies by the sword of the avenging Hildebrand. The new characters of importance, such as Rudeger, Dietrich, and Giseller are all introduced with special reference to the modern form of the story. The great Berner could not be omitted in the description of the court of Etzel; and his interference must be decisive if he be brought forward at all. The sympathies of the audience evidently were expected to go with the Burgundians and against the treacherous Kriemhild; it was not possible that he should form one of the band who aided her in her deeds of treason; the combat must be brought to such a point as to require and also to justify the interference of Dietrich. This is effected by the introduction of the blameless Rudeger, who is, on the side of Kriemhild, involved in the same fatal necessity as Hagan on the other; the attempt to

secure him honorable burial involves the men of Dietrich in the fray; and Dietrich himself, on learning the death of his nephew and following, finally intervenes as an almost divine warrior, and consigns the two guiltier contrivers of Siegfried's death to the revenge of the Queen; but when she disregards the advice of Dietrich to show mercy, she perishes in her turn.

The fall of Dietrich's men at the court of Etzel, although inconsistent with his return to Italy in the other legends, was in some mode mixed up with the old story of Gudrun, for in the Edda we read as an introduction to the second lay of Gudrun, "Thiodrek the King was in Atli's house and lost there the more part of his men; so there Thiodrek and Gudrun bewailed their troubles together."

The character of Giselher, the younger brother, and his connexion with Rudeger, are introduced at once to give pathos to the catastrophe, and to enhance the treachery of Kriemhild by forcing her to choose between the safety of those she loved and the destruction of those she hated.

The chief difficulty in the conclusion of the poem lay in describing the conduct of Etzel as a powerful, wise, and hospitable King, who in perfect good faith invites his wife's kinsmen to his palace. It was impossible to harmonise the favorable character of Etzel with the deed of treachery which was to be perpetrated at his court. He is represented as being swept away in the torrent of combat raised by Kriemhild, and, failing to exert any power or influence over events, sits in his chair tamely, while his wife is executed before his eyes.

The vast mass of persons and incidents superadded to the original story in the second part were probably gleaned from other ballads now utterly lost, but their introduction was not accidental, for they are all disposed so as to contribute to the general result.

One of the most curious intentional alterations in the older story is the mingled motives attributed to Hagan for

promoting the death of his lord, King Gunther. In the original story Gunnar desires the death of Hogni before his own, to secure the secret of the treasure ; Hagan secures the same object by desiring to see the head of Gunther, to relieve him from his oath not to disclose the hiding place during the King's life : but an additional motive is added, that he feared that after his death Kriemhild would send back her brother to the Rhine again. This is apparently inconsistent with his ruling passion of personal loyalty, but is explained if reference is made to his urging the departure of the Burgundians, in spite of the evil omens which occurred, and in contradiction to his own previous advice. When Hagan predicts at the court of Gunther the treachery of Kriemhild, he is insulted as being influenced by fear for his own safety, to which he replies,

- (1514) "Never shall you, never, lead with you hence a man
That with you dare ride readier to visit your
worst foe.
Since you will not hear counsel, this I ere long
shall show."

His honour is engaged in the adventure, and he presses it forward, always predicting the end : Thus when Uta details the dream, he replies :—

- (1560) "Whoever cares for dreams and thinks by them to walk
Ne'er in the path of honour with steady step can stalk,
Or breathe the voice of reason, but wavers to and fro
I ride, my noble master, take leave and forward go."
(1561) "Yes! we shall ride full gladly hence into Etzel's land;
There Kings need for their service many a good
hero's band.
And this fair feast of Kriemhild awaits us there in
view."

He is quite ready himself to perish, but resolved both that Kriemhild shall purchase the victory dearly, and that the master who disregarded his advice and thrust him upon

ruin shall never survive him; by the death of Gunther he accomplishes both his objects. This deep malignant feeling toward the master who had slighted his advice and allowed him to be insulted at his court; this determination that, as he must perish, Gumber should die with him, is in perfect keeping with his character throughout.

It is now possible, with the information which we possess, to discern how such a poem as the great German epic was gradually built up, out of what it grew, and what was requisite to its complete development. We see that in remote antiquity the tale of Sigurd and Brynhild existed among the Teutonic tribes long before their conversion to Christianity. The early form of the story, or rather the earliest form of the story which we possess, is redolent of the spirit of the old Teutonic mythology, and that the characters, their motives, and actions, are such as could not have been in their original form appreciated by a Christian audience. We have no reason to believe that in the tale of Sigurd there existed any historical basis, yet certain historical or quasi-historical persons and names get ultimately mixed up with it, but in a form so strangely altered that all historical verisimilitude disappears, if it ever existed.

The story of Sigurd having once become popular, various new stories of adventure are associated with his name, various localities become the acknowledged scenes of his exploits, relics of his existence are publicly recognised. Other poems, which may have some historical basis, become mixed up in the popular memory with the purely mythical Sigurd lay, whereby the ancient story is greatly modified by the introduction of new characters, and an entire alteration of the catastrophe. At this stage there exist a series of ballads which form one continuous traditional cycle, but without any definite commencement or termination, a floating mass of poems, like the inorganic matter of a nebula which has not yet under the influence of natural laws formed a definite planetary system. The

ballad poetry of a nation may never be developed beyond this point, but it may chance that some poet or singer of higher genius will arise, who attains to an idea of poetic unity, and gives to the whole series of ballads, or some selected portion, a definite form by combining them into one tale, adapting their incidents so that all may tend to the same result, and leading them to some distinct and satisfactory conclusion.

Once and again may this attempt be made without permanent success, but at last a poem is produced which, from its intrinsic merits or its adaptation to the national feeling, gains such a hold upon the popular mind as to supersede the original poems upon which it is based, and out of which it was constructed.

If the result be a work not of one time, but of all times, it attains the rank of an epic not merely national but international. Such a work, when constructed, does not necessarily possess a fixed and invariable form. In the mouths of the bards who recite it, there must be constant variations in details. Much of the common form of heroic descriptions may be added or omitted; at convenient points in the story episodes may be introduced; but it still retains its nature and unity so long as the greater features of the work remain unaltered, and the same catastrophe is attained by the same arrangement of facts and characters.

The war with Ludgast and Ludger in the first part of the *Nibelungenlied*, and a large proportion of the details of the journey to Etzelburg, may be omitted without any injury to the poem as a whole; but whether these passages formed portion of the composition of the poet who first conceived the lay in its entirety, or whether they were subsequently introduced, it is impossible now to conjecture. On the other hand, there are many of the adventures the omission of which would dissolve the whole work into mere chaos; yet even as to these it does not necessarily follow that they now exist in precisely their original condi-

tion; they may have been expanded or retrenched, but they never could have been, nor can now be, possibly omitted. The poem did not attain a fixed form until reduced to writing, and even written poems are subject to constant alteration, from the change of the language and alteration of taste.

The introduction of criticism causes the false assumption that some one accepted text is the real text, and the variations from it are considered corruptions. A well-known instance of the expansion and alteration of a written poem is afforded by the comparison of the Oxford manuscript of the *Chanson de Roland* with the copies of the same work in other European libraries. From this example we learn that a work of 4000 lines may be expanded to 6000 or even 8000 verses, its metrical system modified, and its grammatical form altered, without its ceasing to be intrinsically the same poem.

To a poem such as the *Nibelungenlied*, can any of the theories of the authorship of the *Iliad* be applied? It is impossible to consider the poem as possessing a unity of authorship such as exists in the case of the *Jerusalem Delivered*, the *Æneid*, or *Paradise Lost*; it is equally clear that it has not been formed by stringing different ballads one after the other in consecutive order, for the antecedent poems are *combined*, not *arranged*, and are modified throughout with reference to a catastrophe different from that of the original legend, from which the greater portion of the poem is derived. The third theory, that of Mr. Grote, fails exactly as the first, in so far as it assumes an original unity of authorship, yet is partially correct in recognising the possibility, or rather the great probability, of subsequent interpolations; but its application is hazardous as resting upon the assumption, which cannot be too often denied, that a critic of the nineteenth century can, unaided, discern what portions of a given work would conflict with the taste of an audience of an early and unrefined period.

The amount of historical information to be derived from

a national epic is fairly exemplified by the *Nibelungenlied*. We find here a class of characters, purely mythical, such as Siegfried and Brunhild; also certain characters equally clearly historical, viz.: Attila, Dietrich, and Pilgrim, all of whom, however, lived at different periods, and could not by any possibility have been united in the same adventure. Further, there are introduced numerous heroes, of whom it cannot be asserted that they are either mythical or historical, but many of whom, in other ballads of equal historical value, are represented as engaged in wholly inconsistent proceedings.

If the *Nibelungenlied* had descended to us, unaccompanied by any external evidence, how could we, by internal criticism, ascertain that one character was mythical and another historical; has Giselher less reality than Gunther? is Siegfried or Brunhild more nebulous than Attila or Dietrich? Even if it could be proved that Attila and Dietrich once actually existed, would not all the supposed information derived from the text as to their lives, exploits, and character, be almost the reverse of the historical truth?

If we once realise that the origin of a German poem, of probably the twelfth century, lies beyond our powers of discovery, that its author is and must remain unknown, and that all historical deductions from it would be incorrect, we must hesitate before we attempt to apply such criticism to, or draw any such deductions from, a Grecian epic of unknown antiquity, as form the staple of what is known as the Homeric question.

Long before the days of modern scepticism, the true historical value of the epic narrative was well expressed by Cervantes:—

“En lo dequehubo Cid, no hayduda, ni menos Bernardo del Carpio; pero de que hicieron las hazañas que dicen creo que la hay muy grande.”*

ALEXANDER G. RICHEY.

* Don Quixote, parte I., c. 49.

COMPARATIVE GRAMMAR OF THE DRAVIDIAN LANGUAGES.

IT is announced that a second edition of Dr. Caldwell's Comparative Grammar of the Dravidian Languages is in preparation. The book has been before the interested public for some time, and seems to have met with general acceptance, and its results to have been acquiesced in. I have no reason for supposing that the second edition will materially change the standpoint and method of treatment observed in the first, and therefore, as I think that the book is constructed on an unscientific principle, I take this opportunity of calling attention to what seem to me to be real defects in the execution of the work.

And first, I wish to disclaim anything like disrespect of the author's work, because it gives proof of considerable knowledge of many of the facts of a great number of languages, and of the author's skill in bringing together the well-known facts of the family of languages under consideration—languages with which Dr. Caldwell is intimately acquainted. I am simply content to consider the results attained, only so far as the method pursued is concerned. I propose, therefore, in this paper to examine his analysis of the Dravidian verb, in which I believe he has failed in exhibiting the genesis and relations of the concrete forms, and that through a vice of method, which I regard as fatal to any mere re-editing of the work as proposed.

If there be one certainty of Comparative Grammar, it is that the juxtaposition of forms sporadically, and the generalisation at each successive stage of the comparison, without any entire view of the whole field, can only lead to confusion. Our only safeguard is to endeavour, by a careful induction which shall comprehend all the observed facts, to get at the mother-form, working down from which we may explain the variations of existing forms. There are now existent five well-recognised and well-worked spheres of Comparative Grammar :—the Indo-Germanic, Teutonic, Romance, Keltic, and Slavonian, representing the activities of Bopp, Grimm, Diez, Zeuss, and Miklosich, respectively. I do not speak of Shemitic, because as yet the work is simply not done, Olshausen not having pursued the line into which he struck so vigorously in his *Hebräische Grammatik*.

Now the success of these '*maestri di color che sanno*' leaves no doubt of the correctness of their method, and therefore it is important to realise for a moment as well what their method is, as the circumstances in which that method was applied. Nor can it be doubted that it consists, as I have said, in an endeavour, according to recognised criteria based on a thorough phonetic, after the *primal forms*, grammatical, lexicographical, &c., of the respective families, in order to the explanation of the existing varieties. But success would have been next to impossible, if fortune had not aided these methodic efforts, by handing down one of the related languages in a high state of preservation. What then are the aids which each sphere has? The Romance is definitely and indisputably based on the Latin, and may be taken as the most fortunate, because we not only can infer from a comparison of the existing languages, what the primal forms *must* have been, but we also historically know what they *were*. To consider a moment what would be the result likely to be

obtained by mere induction, let an observer not acquainted with Latin examine, for instance, the following tables :—

It.	Sp.	Pg.	Prov.	Fr.	Wall.
sono.	soy.	sou.	sui.	suis.	sunt.
sei.	eres.	es.	est.	es.	e'sti.
è.	es.	he.	est.	est.	este.
siamo.	somos.	somos.	sem.	sommes.	suntem.
siete.	sois.	sois.	etz.	êtes.	suntetzi.
sono.	son.	são.	son.	sont.	sunt.

It is evident that before any instructive comparison can be instituted between the corresponding forms of these languages, the forms themselves must have been hunted up to a period when the difference of age no longer makes itself felt: the quantities must be reduced to a common expression before they can be equated. Thus, to work with forms like the Fr. *suis*, with its late *s* final, and It. *sono*, is to presuppose failure. Supposing this difficulty removed, what results might be expected from the mere comparison of the forms as they stand in this particular series of examples?

He might probably arrive at the conclusion that the original forms were something like the following :—

suntis.
sest?
est.
s-m-s.
sestes.
sunt.

If now he were to study further carefully the phonetic of these languages, he would find reason to modify his inferences, and would, no doubt, get much nearer to the

real forms ; but it is quite evident that the mere comparison of the single tense, and still more of the single person, would lead to no trustworthy results. He would probably succeed in the third persons ; he would certainly fail in the second persons. If now he began with a theory, such *ex. gr.* (I take at random), as that letters are not put in, but may have dropped out, and attempted to arrange his facts with a view to this theory, I hardly like to speculate as to what he would make of the primal form of the second person singular,—(serest?).

Even with the help of the extant Latin language, and its historic relations to the modern languages,* the speculations of the dozens of ingenious writers anent this family of Romance languages, are plenteous enough to give any curious person a good spell of profitless reading, and would, no doubt, if persevered in, inspire him with a lasting mistrust of any theorizing on isolated facts.

In the wide field of the Slavonian tongues, we have a wonderful aid in the older forms preserved by the Church Slavic and in the related family of Lithuanian. For the Teutonic and Indo-Germanic, we have the vast resources of Gothic and Sanskrit, with their wealth of pure forms, and transparent structure, approximating them to their respective primal forms. As I said, *till* the attainment of the knowledge of these key-languages in their several spheres, progress in

* The following examples from Mr. Roby's Latin grammar will show that isolated speculations are not absolutely unknown, even in the well-trodden paths of Romance grammar. It is found in his Pref., p. xxxv. (2nd ed.), § 7. "Compare this with Italian, where *v* is frequent before a consonant in the middle of a word, *e.g.* *avvo* [sic] (*ha-bebo*), *covrire* (*cooperire*), &c." It is a legitimate inference, I think, to take Mr. Roby as *equating* *avvo* with *ha-*

bebo. Lest I should be doing that scholar an injustice, however, I will put it on the ground of *seeming* so, as it certainly has been so taken, and was quoted to me as an example of *r = b*. The meaning, and the close filial relation existing between the Italian and the Latin, may seem *for a moment* to justify this equation ; but, of course, as is well known, the phonetic laws distinctly negate any such possibility.

comparison was almost impossible. And even when the knowledge was gained, the first step in the progress was such a tentative comparison of the forms, &c., as by continual and repeated correction resulted in an elaborate and methodic *phonetic*, the absolutely essential guide and criterion.

Thus, then, we need at least three things before any satisfactory results can even be hoped for, viz., full methodic comparative tables, showing all the forms in their mutual connexion; 2, a methodic phonetic; and 3, the natural favour of some key-language, within the sphere of the languages compared: and of these, the first and second become still more important and indispensable, when the third is absent.

Now, in Dr. Caldwell's book, 1, the tables are scanty in the extreme; 2, the phonetic is non-existent, as the few pages which he has devoted to the subject really belong to the special grammars, and have little or no bearing on their *comparative* study; and 3, Dr. Caldwell has not cultivated nature's favours in the matter of a key-language, for he has not given nearly sufficient consideration to the oldest attainable forms of the language, such, *ex. gr.*, as Old Tamil and Old Canarese. On the other hand, we have a formidable list of languages and forms quoted, many of which have no bearing whatever on the points for the exemplification of which they are quoted, and still more of them afford simply inapplicable analogies. His book, therefore, while interesting enough, and correct enough in his expositions of the facts of the separate grammars, I must regard as a comparative failure, when considered in the higher light of a Comparative Grammar of the Dravidian family.

For all practical purposes of familiarity, these Dravidian languages are four:—Tamil, Telugu, Canarese, Malayálim, commonly so called, and they are spoken by ten, fourteen,

five, and two-and-a-half millions of people, respectively, in the south of India. There are several uncultivated dialects besides, which we need not mention here, and which, in any case, should be very sparingly used in a Comparative Grammar, until at least each separate dialect have received a searching special investigation by a competent hand, which most assuredly has not been done yet.

These four languages have a considerable native literature, and the facts of their grammars have been set forth by their native grammarians with true Hindu research and subtlety. Under these circumstances, it certainly does seem remarkable that so little should have been done in even the practical side of their study by the Europeans, to whom that knowledge is so important.

The whole group of languages has been, indeed, singularly neglected. It seems astonishing that a language like Telugu should, until last year, when Mr. Arden's Grammar was published (Madras: Grammar, &c., by A. M. Arden, M. A., Christ's College, Cambridge), have had to remain with no aids save such as could be extracted from the old compilations of Morris and Campbell, and Mr. C. P. Brown's Telugu Grammar. Dr. Caldwell, in his preface, says, that Mr. Brown's Telugu Grammar rises far above the level of the ordinary grammars of the Indian vernacular. I can only say that, for the last ten or twelve years, I have had the opportunity afforded me, in instructing successive sets of Indian Civil Service Students, of realizing to a dire extent what an unsatisfactory book a man can write, and entitle a grammar, who yet does really possess an excellent knowledge of the language. Mr. Brown, as translator to Government, was excellent: he is the composer of a grammar which is very poor indeed.

Tamil has had a better fate: Mr. Pope's handbook is convenient, if not particularly scientific or thorough; though certainly more real insight into the language will be

obtained from the grammar of Rhenius, which follows more the order of the native grammars. Winslow's Tamil Dictionary is pretty full, but not what it should be. In Graul, however, we lost an able expositor and editor, and his little editions of the Kaivalyanavanita and the Tiruvalluvar make us the more regret his loss. Canarese has a small grammar, which is handy, but very poor. The scholarly edition of the Jeimini-Bhārata (published by Mögling in the *Zeitschr. der D. M. G.*, xxiv., 310) [caps. 1, 2,] is a very great advance on the old one by Sanderson, and is a hopeful augury for the future. Malayálim, however, is in a fair way to carry off the palm in the matter of an expounder, as there is now being published a good dictionary, which will be the introduction to a real comparative study. Dr. Caldwell's grammar has the honour of breaking ground in the comparative study of these languages.

I have chosen as the main object of my criticism the section of Dr. Caldwell's Grammar, which treats of the verbs, as I think it will be abundantly apparent that the principles on which he conducts his comparisons and analyses are often wrong and misleading. I do not intend to follow him in his consideration of the root syllables of the Dravidian language, but simply to examine his account of the structure of the verbal formations.

At the very outset of his general considerations on the verbs, p. 353, he allows himself to make use of the following comparison:—"The Dravidian *transitives* and *intransitives* exactly resemble in force and use the *determinate* and *indeterminate* verbs of the Hungarian." Now a Dravidian intransitive is precisely like our own. Thus *pésinên*, *I talked*, is intransitive, while *panninên*, *I made*, is a transitive, as indeed it should seem superfluous to exemplify; but the whole point of distinction between the determinate and indeterminate verbs of Hungarian is, that these two forms of conjugation apply *only* to active verbs—the former

expressing the fact that a *definite accusative* follows, implicitly or explicitly, while, in the latter, abstraction is made of any mention of the direct object.

Ex. gr. in Hungarian we say :—

mi leveleket írjünk,	we should write letters.
mi <i>a'</i> leveleket írjuk,	we should write <i>the</i> letters.

ők virágokat szakasztandák, they would pluck flowers.

ők *a'* virágokat szakasztandák, they would pluck *the* flowers.

I have no objection to the introduction of a Hungarian comparison for the purpose of correlating the Dravidian with the Ural-Altaic family, but here it is certain that the cases have no point of comparison at all, and are alike 'neither in force nor use.'

To make the matter clearer, I give here the conjugation of a verb in Hungarian having these two forms, which it is to be noted *must* be an active* verb :—

Present tense.

Indefinite.

Definite.

ismer-ek, I know.	ismer-em, I know (him, it, &c.)
ismer-sz, thou knowest,	ismer-ed, thou knowest.
ismer, he knows.	ismer-i, he knows.
ismer-ünk, we know.	ismer-jük, we know.
ismer-tek, you know.	ismer-itek, you know.
ismer-nek, they know.	ismer-ik, they know.

Now, it is at once apparent that not one of the terminations is alike in the two cases; ismer is the verbal root, but when the mention of a definite object is intended, *em* is

* Of course there are a few Hungarian verbs which can be either neuter or active. Thus *jár*, to go, may have the meaning go (a dance), and then it becomes a quasi-active verb, and comes under the regular rule. Thus *jár-ok*, I go, but *jár-om* a tanczot, I go the dance, I am dancing. But we get no nearer the Dravidian analogies by these rare examples.

appended to denote the subject *I*, which is otherwise denoted by the affix *ek* ; so *ed* affix contrasted with *sz*, &c.

But what are the facts in Tamil? That in both classes of verbs, transitives and intransitives, precisely the same personal terminations are appended, thus:—

Intransitive.	Transitive.
pēs-in-ên.	panṇ-in-ên.
pēs-in-ây.	panṇ-in-ây.
pēs-in-ân.	panṇ-in-ân.
pēs-in-ôm.	panṇ-in-ôm.
pēs-in-îr.	panṇ-in-îr.
pēs-in-ârgal.	panṇ-in-ârgal.

Now, let us take an example of a verbal root in Tamil, which can be made transitive or intransitive by a difference in formative *affix* before the personal terminations are appended, thus:—

- tiri-*kk*-ir-ên, I make to turn, twist, alter, &c.
- tiri-*g*-ir-ên, I walk about, revolve ;

the personal terminations being in both cases identical.

In fact, there could not possibly be a more objectionable comparison than this, which, at the very outset, Dr. Caldwell has made, though probably the inadequacy of existing Hungarian grammars may have something to do with Dr. Caldwell's mistake. It can hardly be said that the rationale of the Hungarian verbal system has been satisfactorily explained as yet, by natives or foreigners. The root syllable, however, of Dravidian verbs is not always left to differentiate itself into transitive and intransitive by means of a varying tense affix, for occasionally it takes certain modifications, which become inherent in the whole verb, and are carried along with it through the entire conjugation. Here again, I think Dr. Caldwell has not ex-

plained anything, by assuming the intransitive affixes as the normal state of things, which intransitives are *changed* into transitives by certain modifications of their own forms. Thus nothing is gained by saying that, from the intransitive *pô-gu*, to go, comes the transitive *pô-kku*, to drive away, by the doubling and hardening of the consonants of the formative. The real state of the relation is thereby only obscured: the two affixes *gu* and *kku*, *bu* and *ppu*, &c., are simply specialisations of the radical conceptions in the two directions, transitive and intransitive, which it can serve no purpose whatever to represent as being derived one from the other; for it might just as well, and just as needlessly be asserted, that the intransitives come from the transitives by the change of the affix *kku* into *gu*. And to what this leads we may see from the following sentence (p. 355):—"If the transitive *p* in *ppu* were not *known to be* derived from the hardening of an intransitive formative, *we might be inclined* to affiliate it with the *p* which is characteristic of a certain class of causal verbs in Sanscrit, as *jnâ-p-ayâmi*!" This, however, is only intended by Dr. Caldwell as a thing of nought, and I may mention in passing, that it is a not uncommon occurrence throughout the book to find perfectly futile comparisons thus flung out, with no intention of giving them much weight. In the present case Dr. Caldwell knocks down his man of straw by the statement, that 'the real sign of the causal in Sanskrit is *aya*, and the *p* which precedes it is considered to be only an *euphonic fulcrum*.' When such a phrase as this can be used by a comparative philologist, we not unnaturally begin to experience misgivings: 'euphonic fulcrum' is much too convenient a phrase, and leads nowhere.

This *doubling* of the affix to form transitives is elsewhere stated to take place in nouns for the purpose of forming adjectives: *e. gr.* *pâ(m)bu*, a snake, becomes *pâ-ppu*, serpentine. Dr. Caldwell thus accounts for this (p. 356):—

“When nouns are used to qualify other sounds [!], as well as in the use of transitive verbs, there is *a transition in the meaning of the theme to some other object*, and the idea of a transition is expressed by the doubling and hardening of the consonant of the formative, or rather by the *forcible and emphatic enunciation* of the verb, which *that hardening of the formative necessitates*.” In other words, *pâ-ppu* being *hard* (*surd* and *sonant* would have kept off the monstium), tends to a more forcible enunciation than *pâmbu*, and so expresses the idea of transition to some other object, and so is naturally employed to mean *serpentine*.

The explanation I leave to the ingenious expositor. Nor, be it remarked, is this a mere passing idea caught at for explanation momentarily; for Dr. Caldwell, on the same page, returns to the charge again, and in giving the *rationale* of the phenomenon mentioned above (*tiri-gir-ên*, intransitive, *tiri-kkir-ên*, transitive), he says:—“The latter is an emphasised, hardened enunciation of the intransitive or natural form of the verb; and the forcible enunciation thus produced is symbolical of the force of transition, by which the meaning of the transitive theme overflows, and passes on to the object indicated by the accusative.” It is not easy to realise that explanation: the *meaning* of the transitive theme *overflowing*, and passing on to the accusative. Here the point of this simile is the *force* with which it does its overflowing, and which needs to be represented by a *harder* form, which harder form is *ppu*, as contrasted with *bu*! It is curious that in the imperative the root remains the same for both transitive and intransitive forms. Besides, there are many verbs which simply reverse the process: thus *iru*, to be, is *iru-kkir-ên*, in all the dignity of a transitive verb, whereas *î*, to give, is simply *î-girên*, in the modesty of an intransitive.

But having got hold of a principle of the transitive force of hard affixes, he proceeds deliberately to destroy it by his explanation of the third class of transitives, which

are formed by adding a particle of transition to the root. Now here Canarese uses *du*, and Tamil *ttu*, for the particle; but, after a brief disquisition, which makes nothing for his purpose, Dr. Caldwell concludes that *du*, and not *ttu*, is to be regarded as the primitive form of this *transitive suffix*. What has become meanwhile of the *force* of the hardened affix, &c.? In asking the origin of this *du*, Dr. Caldwell believes it to be *identical* with (p. 358) the adjectival formative *ttu*, above mentioned, and thus he explains the *neuter demonstrative* form:—"There is a *transition of meaning* when a noun is used adjectivally, as well as when a verb is used transitively, and in both cases the Dravidian languages use one and the same means of expressing transition." The fallacy lies of course in the paronyms, transitive and transition.

In the section on the causal verb we are told that the most common affix is *vi*, instead of which we have *bi*, or *ppi*, according to the *euphonic requirements of the preceding syllable*, and by this vague rule: "when the theme ends in a vowel which is of such a character that, if a sonant follows, it will necessarily be hardened and doubled, [then] *vi* or *bi* changes *dialectically* into *ppi*." Unfortunately, the principle of the doubling of consonants in Tamil has never been properly investigated, and all assertion thereanent beyond a certain point is liable to exception.

In particular, it does seem remarkable that Dr. Caldwell should not have appreciated the full importance of the phenomenon of doubling initial letters after certain final vowels in certain grammatical categories. That Mr. Brown should speak disparagingly of the native grammars and their 'subtleties,' was to be expected, but Dr. Caldwell should have felt the importance of this singular law. It is a principle quite as characteristic as the aspiration and eclipsis of Keltic grammars, and deserves a much more thorough investigation than it has received. I will here give a few typical examples, of ordinary occurrence in

Tamil, of the manner in which the principle works, and will then briefly indicate what I believe to be the rationale of the procedure. *Ex. gr.* :—

In Tamil, when an accus. ending in *ai* immediately precedes its governing verb, and this verb begins with one of the mutes [k, s, t, p], such initial mute following the final *ai* is doubled, thus

manithanci-k-kandén, I saw the man.

The same takes place after an infinitival in *a* :—

kolla-p-pattán, he was killed.

So again in the construction called Tatpurusha, where the crude form is prefixed to its governing noun so as to form one word :—

puli-t-tól, tiger-skin, for 'tiger's skin.'

This will suffice to show the workings of a principle, of which Dr. Caldwell himself confesses the importance in allowing that "Dravidian grammarians have bestowed more attention and care on *euphonic permutation* than on any other subject." He adds shortly after: "it will suffice to notice a few of the permutations; for *the subject is too wide*, and *at the same time not of sufficient importance*, to allow of our entering on a minute investigation of it."

I must regret that Dr. Caldwell has failed to see that it is precisely HERE, IN THIS SUBJECT OF EUPHONIC PERMUTATIONS, THAT THE SECRET OF MUCH OF DRAVIDIAN MORPHOLOGY IS TO BE SOUGHT. It is impossible to determine the endings of the various affixes until we penetrate the secret of these perpetually acting euphonic laws. We shall have to explain why Tamil *hardens*, while Telugu *softens*, the initial consonant of a word following an infinitive in *a*; why Canarese *softens* while Tamil *hardens*, the initial consonant of the governing word in a Tatpurusha, while all the dialects agree in softening the initial consonant of the

second word in a Dwandwa or aggregate compound. The mysteries of *Kala* and *Druta* words must be done away with, and the case of *n* versus *y* in any given instance to avoid hiatus, must be settled on rational and intelligible grounds. The only explanation, however, that we can extract from Dr. Caldwell is our oft-repeated formula: "this doubling and hardening of the initial is evidently meant to symbolise the *transition of the signification* of the first word to the second" (p. 126); in other words, in *puli-t-tôl*, the tiger *puli*, has transferred his signification to his skin *tôl*! The Doctor will pardon a smile, but I must add, that whatever merit that explanation may have, in the matter of Tamil, it is absolutely void of all relevance in a comparative Dravidian grammar, because Canarese does *not* do this thing, but the other thing. Thus, given in Canarese, *huli*, a tiger, and *togalu*, a skin; then the compound as above is just the contrary, viz.:—*huli dogalu*, where, I fear, we should hardly be justified in inferring the re-transfer to the tiger in Canarese of his natural significance, of which he had been locally deprived in Tamil!

I have little doubt that this phenomenon of initial doubling is to be ascribed primarily to the action of ASSIMILATION. What the precise letters are in any given case which have been lost, I shall not here consider, as I hope shortly to have leisure to finish a paper bearing on this subject,—a subject, as Dr. Caldwell justly observed, 'far too wide' to receive sufficient treatment in a casual mention.

To revert to our causal particle, once more we come upon a repetition of the man of straw. On p. 363 we have this paragraph:—

"The oldest and present form of the Indo-European causative particle is supposed to be the Sanscrit *aya*, with *þ* prefixed after a root in *â*; *aya* becomes *i* in Old Slavonic; and the resemblance between this and the Telugu *i* is very

close [!]; *nevertheless*, the derivation of the latter from *vi*, or *bi*, and of the former from *aya*, proves that the resemblance is purely accidental."

In the section on the passive (p. 364) we are told about the Sanskrit passive *ya*, and about the Turkish, Finnish, and Hungarian affixes, all of which is superfluous and irrelevant, because the Dravidian verb, as Dr. Caldwell himself says, has not, and probably never had, a passive. Its function is supplied variously, but there is nothing new nor deserving of notice in the manner in which these various ways are set forth, as the smallest Tamil grammar could not certainly say less on the matter.

On p. 368 the negative voice is introduced thus:—"Properly speaking, the Dravidian negative is rather a *mood* or *voice* than a *conjugation*." And then we have a somewhat unintelligible clause: "negation is generally expressed in the Indo-European family by means of a separate particle used adverbially; and instances of *combination like the Sanskrit nāsti*, 'it is not,' the negative of *asti*, 'it is,' are very rare, and are found only in connexion with substantive or auxiliary verbs; whereas in the Scythian languages every verb has a negative voice and mood as well as an affirmative."

The clause I have italicised is certainly liable to be misunderstood, and it may be as well to consider for a moment what Dr. Caldwell means. Nothing can be commoner in Slavic and Lithuanian than this blending into *one* word of negative and verb. Thus in Lithuanian (v. Schleicher's Litauische Gram., p. 325) we can say *nė daug išzmókau*, "I have not learnt much," or uniting the negative and the verb, *daug neiszmókau*. And Miklosich gives examples in abundance of *ne* compounded with verbs (v. his Vergleich. Syntax der Slavischen Sprachen, p. 172). As to verbs in which the union with the negative not only negates the idea, but turns it into its contrary, cf. Sl.

br̥sh̥ti, to value highly, *nebr̥sh̥ti*, to contemn, and cf. *negligere*, and *in-videre*. The instances of the *insertion* of the negative between the prefix and the verb in the case of compound verbs are very numerous: cf. *iz-ne-byti*, which does not simply mean “non existere,” but absolutely “interire.” Now, curiously, in Sanskrit the verb *asti* with *na*, *nāsti*, has a sort of pregnant meaning, like our “Rachel weeping for her children, and they *are not* ;” thus *nāsti* comes to mean “to be lost,” &c. If then Dr. Caldwell means simply the *sandhi* or union of *na* with a verb beginning with a vowel, then *that* phenomenon would occur in Sanskrit in *every conceivable verb beginning with a vowel* ; but if he means to speak of that pregnant force in the negative particle by which, as above, it contradicts, not simply negates, (like οὐκ ἐῷ, οὐ κελεύω, I forbid; οὐ στέργω, I hate; οὐ φημι, I deny;) then it is by no means *rare*, and restricted to substantive or auxiliary verbs, for the Slavonic languages will furnish abundant examples of this intimate union of the negative with the verb: *ex. gr.* Russ. *iz-ne-volit*, to compel, *iz-ne-duzhit*, debilitare; Bohem. *z-ne-vdzhiti*, contemnere, Polish *z-nie-ważyc*, id. Bohem. *pro-ne-věřiti se*, desciscere, Polish *prze-nie-wierzyć się*, id., &c.

Dr. Caldwell continues:—“The Scythian negative voice is generally formed by the *insertion of a particle of negation* between the theme and the pronominal suffixes.” This is quite true, *ex. gr.* in Turkish *sev-mek* is to love, *sev-me-mek*, not to love; *sevil-mek*, to be loved, *sevil-me-mek*, not to be loved, &c. Dr. C. adds, “and this [i. e. the insertion of a particle of negation] is as distinctive of the Dravidian as of the Turkish languages.” But, as a matter of fact, the exact way in which the Dravidian verb forms its negative is just that it *does not insert any particle at all*; in other words, it omits the syllable which we have already observed as the characteristic of the affirmative in Tamil, viz., pres. *khir* or *gir*, &c.; thus *vāzh-gir-ên*, I flourish; *vāzh-nd-ên*,

I did flourish; vazh-*v-ên*, I shall flourish; while the negative is simply, with *no* particle, *vâzh-ên*, I did (do, will) *not* flourish, and has no temporal reference.

This, however, does not suffice for Dr. C., who puts forward a specious but untenable theory. As F. Müller (in the Ling. Theil of the Novara Reise, p. 98) puts it, after Dr. Caldwell, "the sign of the negative particle is *a*, apparently a weakening of the negative particle *al*." And at first sight this may seem attractive; but let us examine the facts. As Dr. Caldwell admits, p. 369, that "we should not feel ourselves warranted in considering the vowel *a* as a particle of negation, without distinct, reliable evidence from some other source" [than the predominant and permanent place it has in the verbal and relative participles], we are justified in asking, what then *is* this distinct, reliable evidence?

He continues: "The pronominal terminations of the negative voice of the Telugu are identical with those of the present tense of the affirmative; in Telugu verbs the pronoun is represented by the final syllable alone, and that syllable *invariably commences with a consonant*. Hence, if no particle of negation were used in the conjugation of the Telugu negative voice, the pronominal suffix would be appended directly to the verbal theme, and as every Telugu theme terminates in the enunciative *u*, that *u* would not be elided, but would invariably remain."

In other words, as "pampu" means to send, then, if the pronoun were appended without any inserted negative particle, and *if* the pronoun *necessarily* began with a consonant, the negative inflexion would have *u*, instead of appearing, as it does, in *a*, ex. g.:

Singular.	Plural.
1. pamp- <i>a</i> -nu.	pamp- <i>a</i> -mu.
2. pamp- <i>a</i> -vu.	pamp- <i>a</i> -ru.
3. pamp- <i>a</i> -du.	pamp- <i>a</i> -ru.

Now let us consider what we might expect in the other, or affirmative voice, from this way of stating the case ; let us take, for example, the present tense,—then using precisely the same reasoning, as *tunnu* (p. 387) is the ordinary termination of the present participle, and as the pronoun is represented by the final syllable alone, and as that syllable, according to Dr. C., invariably commences with a consonant, &c., we should, of course, expect in the present tense :

pampu-tunnu-nu,
pampu-tunnu-vu, &c.

But what are the facts ? We find not these forms, but

pampu-tunnâ-nu,
pampu-tunnâ-vu.

Therefore, according to Dr. Caldwell's reasonings, the particle *a* has been inserted, so that our affirmative would turn out to be another negative !

Evidently this does not make much for his theory. The fact is, we have no satisfactory treatment at all of the personal terminations in Dravidian, and the only justification of the statement about personal terminations *always beginning with a consonant* is to be found in this curious passage (p. 295) : " The verbal inflections of the Telugu use only the final syllable of the nominative of each of the pronouns *nu* (from *nēnu*, I), *vu* (from *nīvu*, thou), and *du* (from *vādu*, he). The *most important and essential* part of each pronoun has thus been omitted ; and the fragments which have been retained are *merely formatives*, or, at most, signs of gender and number." And that is all we get of an analysis of the Telugu personal terminations of the verbs, and no proof therewith.

On p. 370, Dr. C., after admitting that there is no particle in Tamil or Canarese, says:—" On examining the Telugu negative it is found that the vowel *a* invariably in-

tervenes between the theme and the pronominal suffix, which therefore is evidently not a euphonic insertion, but a particle of negation. Compare," he adds—

Telugu.	Tamil.	
chêy-a-nu.	sey-yên,	I do not.
chêy-a-vu.	sey-yây,	thou dost not.
chêy-a-mu.	sey-yôm,	we do not.

"From this comparison," he adds, "it cannot be doubted that *a* is regularly used in Telugu as a particle of negation." But this is not tenable in the face of the facts, as may be seen by comparing the Telugu *affirmative* termination with the negative:

Negative:

	Telugu.				
Tamil terminations.	Affirmative.		Negative.		Tamil terminations.
-ên	pamputunn	-ânu, I do send.	pamp-ânu,	I don't send.	-ên.
-ây		âvu, thou dost.	-âvu,		-ây.
-ân		âdu he does.	-âdu		-ân.
-âl, -adu		âdi, she, it does.	-âdu,		âl, -âdu.
-ôm		âmu, we do,	-âmu,		-ôm.
-îr		âru, ye do.	-âru,		-îr.
-âr		âru, } they (m f.) do.	-âru,		-âr.
-ana		âvi } they (n.) do.	-âvu,		-â.

So the Telugu future affirmative is pampedânu, pampedavu, pampedamu, &c. In short, *all through* the Telugu keeps the *a* preceding what seem the personal terminations, and the *a* is found equally in affirmative and negative, this *a* in the present affirmative becoming all through even *â*. Now, if a person studying Dr. Caldwell's grammar, without a practical acquaintance with the languages, were to read his remarks of *al* being the negative particle, and *a* a softened form, &c., it might seem as if there were some truth in his theory. But I have shown that *a* is not exclusively characteristic of the negative even in Telugu, where confessedly alone it is found. But that is not all; for while

al has in certain forms a negative meaning, this very *al* is *not in Telugu*, but in Tamil. No one who has had the opportunity of drilling Indian students into the mysteries of the distinction in Tamil between the negative *alla*, which negates the predicate, and *illei*, which negates the subject, should have any exclusive affection for the syllable *al* as *the* negative; but, besides, precisely in Telugu, where the assumed *al* should appear, it is not used, and in place of *alla* and *illei* we have *kādu* and *lēdu* as the negative particles, with the same distinction, based on the negation of predicate, or of subject, as in Tamil; so that there is not the shadow of a reason for accepting the explanation which Dr. Caldwell proposes.

One might conjecture that the origin of this compound tense is to be sought on the analogy of past *pampinānu* from a form of *undūta*, viz., *undina*, contracted *unna*, and that the presence of the long *ā* in the anlaut of the pronominal endings is owing to the contraction of this final *a*, with an initial vowel in the pronominal suffix. But this does not in any way interfere with my argument above given, and in any case is useless to Dr. Caldwell, who holds (p. 387) that this *tunnu* is a compound from *tu*, and *unnu*, a participle of the verb *undū*.

Elsewhere Dr. Caldwell uses this principle in explaining the Telugu plural *gurrālu*, which he deduces from *gurra* + *alu* (for a normal *kalu*, the equivalent of Tamil *gal*). The principle is not made objectionable *per se* by the circumstance that Dr. Caldwell's employment of it in this case may not appear satisfactory, for it is quite open to hold a different theory as to this *gurrālu*, viz., that it is the result of a contraction of the normal form *gurramulu*, by the addition of the usual plural affix *lu* to the singular *gurramu*, the final *u* being generally not pronounced, and thus we should have *gurramlu*, = *āllu* = *ālu*.

[In his analysis of this plural affix *galu*, he exhibits

k, nk, ngâ, and skâ, as correlated forms. From this we come to *t*, as $k = t$ in certain Finnish examples. I shall certainly not dispute this equation of $k = t$, and he might have gone much further, as in Mordwin we have *k* equated even with *diz*, thus, $k = t = de = diz$ (*v. Boller in Sitz.-Ber. der Wien.-Akad.*, vol. xv., p. 289). Consequently we may fairly allege the Hungarian plural *k* as an example here pertinent. But why should the Armenian *k* be quoted? Or Zend, as having a neuter plural in *t*; thus, as Dr. Caldwell (p. 186) says, for Sanskrit *imâni* we have Zend *imat* [!]. Having launched us on this sea of speculation, we have Semitic *ta* and *ka* introduced, &c., which naturally leads up to the question of the 'prius.' The priority is given to *t*, so that the Dravidian *gala* may have been *tala*. Now, it will be observed that this cloud of analogies has simply obscured the phenomenon, and brought us to *tala*, an utterly baseless form, which has not the shadow of an existence as a plural form in any Dravidian dialect. In despair Dr. Caldwell winds up thus:—"The Dravidian *tala* or *dala*, a host or crowd, would give a good meaning; but *even this derivation of kal or tal is altogether destitute of evidence.*" After this it should seem superfluous to add, that Mr. Sayce has very little justification indeed for his statement in his *Principles of Comparative Philology*, p. 182:—"Just as the Tamil plural affix *gal* or *kar*, the Telugu *lu* has been traced by Dr. Caldwell to the common Dravidian *tala* or *daḷa*, so the plural suffixes of these [other] languages," &c. Truly these Dravidian languages have had an ill fate, when a philologist can calmly make such an assertion as this, that the Tamil *gal* or *kar* [where did Mr. Sayce get this *kar*? There is no Tamil plural *kar*;] has been traced by Dr. Caldwell to *tala*!

I append, as a help to Mr. Sayce to appreciate the manner of Dr. Caldwell's etymological procedure, and as

a rider to the whole discussion, the argument which Dr. Caldwell makes use of in objecting to Dr. Stevenson's equation of this Tamil *gal* with Sanskrit *sa-kala*. And to remove any doubt, I give Dr. Caldwell's own words (p. 197):—" 'kal,' the base of 'sa-kala,' has been connected with $\delta\lambda\text{-}\sigma\varsigma$; but the root signifying *all*, which the Dravidians have preferred to retain, viz., 'ell,' is connected, not with $\delta\lambda$, whole, the Hebrew *kol*, &c., but with the Saxon *cal*, English *all*." After a sentence containing two such equations as—1, Greek $\delta\lambda$ = Hebrew *kol*, and 2, Tamil *ell* = English *all*, Mr. Sayce can hardly feel inclined to adopt without questioning Dr. Caldwell's analyses; but, at the same time, he ought not to add to the list of Dr. Caldwell's etymological peccadilloes].

The same argument might be applied in the case of what are called 'appellative' verbs; thus in Telugu we have *sevakula-mu* [so divided by Dr. Caldwell], = we (are) servants, where, as the plural termination is *ulu*, if the consonant-beginning pronominal affix were simply appended, we should have *sevakulu-mu*. Similarly, in the case of the singular *sevakuda-nu*, I (am) a servant.

And now we proceed to his view of the Conjugational system. Here at the beginning we meet (p. 379) a novel speculation for the comparative philologist. "Sometimes," Dr. Caldwell says, "one dialect alone furnishes the key to the explanation of the inflexional forms, which are apparent in all. Thus the origin of *unt* or *ant*, the sign of the third person plural in the Indo-E. languages (*e. g.* *ferunt*, $\phi\acute{\epsilon}\rho\upsilon\upsilon\tau\iota$, *bharanti*, &c.) is found in the Welsh alone, in which *hwynt* is a pronoun of the third person plural." This is, of course, very bad, being about as reasonable as to say that the termination *no* in the Ital. *eglino*, *elleno*, is the origin of the ending *no* of the third person plural of verbs, *e. gr.* *amano*, &c., the fact being that equally in Welsh as in Italian it was the *verbal* termination that

produced the particular form of the pronoun. Thus Welsh (Zeuss Gram. Celt., p. 372) has *wy* after the verb, while it takes *wynt* when the pronoun *precedes* the verb, e. gr. *wynt awelynt*, they saw, but *deuant wy*, they will come. Thus, young Irish folk (v. O'Donovan's Irish Gram., p. 154, note) have said "cuireadh *maid-ne*," for cuireadh *shinne*, i. e. they have constructed a pronoun *maid* from the verbal termination.

We next proceed to certain abstract conceptions as to the prefixes and suffixes of the Semitic languages, and the explanation of their functions. When the pronominal fragments are prefixed, the tense of the verb [in Semitic] is regarded as future: it is regarded as past when they are suffixed. Probably Dr. Caldwell knows that they are not the same affixes which are thus prefixed and affixed; and when, the radical syllable being supposed *qatl*, a killing, the Semite said *e-qtol*, I *will* kill, and *qatal-ti*, I *did* kill, he no doubt was aware that some very important *internal* changes had been introduced, as well as additions a parte ante or a parte post. But this is immaterial, the mention of the Semitic languages suffices to form a peg on which to hang the following explanation:—"Prefixing the pronominal fragments denotes that the action of the verb has, as yet, only a subjective existence in the mind of the speaker or agent, i. e. it is future; suffixing them denotes that the action of the verb has already acquired an objective existence, apart from the will or wish of the speaker or agent, i. e. it is past." Now, this is apropos of nothing, for he proceeds to add:—"No peculiarity of this kind characterises the Dravidian languages;" so that it were just as allowable to set down all the modes of verbal conjugation that it ever entered into head or mind to conceive, as to quote the Semitic.

On p. 383 we are introduced to the tenses and their for-

mation, in which a student who knows nothing of the language will only be puzzled, and a scholar would remain uninterested, till we find our irrepressible straw-man again. Thus, the particle *tu* being known as a sign of present time in Telugu, he says, p. 387 : " We might propose to compare it with *at* or *t*, the formative of the Skr. present participle e. g., *jayat*, conquering." Then he knocks that down, adding, immediately : " We might also compare the Telugu formative with *te* or *ite*, the formative of the Bengali present participle, e. g., *karite*, doing." Then he knocks that down, and so the matter ends.

He has no theory whatever to offer on the origin and ulterior relationship of *gir* as the sign of present tense in Tamil, though even here he has unnecessarily introduced a notice of a slight resemblance in sound between the nasalised form *gindru* and *ant*, ende, &c., the formative of the I.-Europ. present participle.

What is wanted, however, is a series of carefully constructed tables of the oldest forms attainable in the Dravidian, before we proceed to any speculation ; and all who have the real interests of philology at heart must deprecate this heterogeneous mixture of old and new—of absolute fact and untenable theory, which forms the warp and woof of the web Dr. Caldwell has spun. How differently he would work with wider and better data, such as would be furnished by careful tables and a good phonetic, may be seen from a paragraph at foot of p. 389, in which he shows that the Malayâlim *kkunnu* is *not* related to the Telugu *chunnu*.

In the introduction to his considerations on the preterite, p. 391, Dr. Caldwell, as if casually, slips in a remark, in which he couples the Germanic tongues, Modern Persian, the Turkish and Finnish families of language, the vernacular languages of India, and the Dravidian languages, as forming their preterite by suffixing to the verbal theme a

particle, "generally a *single consonant only*, which is significant of past time." I protest against this meaningless mixture, nor should I note the passage at all, but that I think it has coloured all his speculations on the formation of the past tense in Dravidian. Clearly, if such a process were to be permitted, we should come to no satisfactory results. To sweep into one's net an immense quantity of unrelated languages, and to state something about them which *in the general total*, perhaps, may be correct, is no justification whatever for an inference in any special case. It is notably a wrong statement in one of the most common of his exemplar-languages, the Mordwin (Finnish family), in which it is quite certain (*v. Boller*, in *Sitz.-Ber. der Wien.-Akad.*, xv., 295) that the characteristic of the preterite is *i*; cf. *sod-y-n*, I knew, *sod-y-t*, thou knewest, from *sod*, to know. But the purpose of the broad statement was plainly to create a prejudice in favour of his exposition of the preterite-factor as being a consonant, not a vowel, an exposition which I regard as a failure, and a failure to no small extent attributable to that unfortunate "*generally*," in the paragraph quoted.

There are, according to him, p. 391, two Dravidian methods of forming the preterite :—

1. by reduplication of the final consonant; and
2. by suffixing a sign of past tense.

e. gr. *padu*, to suffer, but *patt-ên*, I suffered, which Dr. Caldwell thinks proceeds from a *similar principle* as the reduplication of the I. E. languages, and thereby constitutes, so far as it goes, an interesting point of resemblance between the *two families*! I should be glad to see wherein is the *slightest* resemblance. Dr. Caldwell, as often, has allowed the *word* reduplication to run away with him. But the second being the characteristic mode, we have it described more fully. In Canarese we find a suffix *du* and a

suffix *i* in this function; thus *ili-du*, having descended, *mâd-i*, having done. Dr. Caldwell then asks, "Can *i* have been derived in any manner from *d*?" As this, however, is not easily mediatable, he concludes to the negative, and gives both *d* and *i* as probably distinct and independent signs of past tense, p. 394. We shall see presently how he accepts and deals with *this* result obtained. In the discussion following, finding that the Canarese has occasion to use a euphonic *d*, even after the genuine preterite sign *i*, and that Tamil uses *n*, he takes it as probable that the *d* quâ euphonic fulcrum = the *d* quâ sign of preterite, and then he supposes the Tamil *n* to have been euphonically altered from it, after which he winds up the whole of this thoroughly unsatisfactory theorizing, by stating (p. 399) that "the *conversion* of *d* into *n* in this connexion is analogous to the *change* of *ta* or *da* into *na* in the past participle of the Indo-European tongues"!

There is a very characteristic passage on p. 399, which shows the aspect in which Dr. Caldwell is accustomed to view these forms and their correlatives. "If the Tamil and Telugu alone were concerned, we should perhaps be justified in considering the purely euphonic origin of the *n* in question to be a settled point; but a *difficulty arises* on comparing these languages with the Canarese." The naughty Canarese, to come in and spoil a good theory so unceremoniously! But surely this is just the wrong view to take. No author of a comparative grammar is justified in prejudicing the minds of his readers in favour of a theory which only covers one part of the facts, and then, when the impression has been given, adding a new element which ought certainly to have been considered *pari passu* in the prior discussion.

Unfortunately, we have no phonetic establishing the possibility and fixing the laws of such assumed alteration of *d* to *n*, which is only here momentarily assumed, because

d and *n* are both now apparently used as "euphonic fulcra" under similar conditions. And the assertion that the ending *ta* of the past participle of Indo-Germanic has been *changed into* the *na* of the Germanic, is merely a confusion of analogy with resemblance, which would lead to such equations as $m = t$,—for *ta-ma* being the superlative affix in Sanskrit, and *ra-ro* in Greek, it follows that *ta-ma* = *ta-ta*; taking equals from equals, we have *ma* = *ta*, or $m = t$! The terminations *ta* and *na* perform the same *function*, but there is not the slightest necessity to derive one of them from the other.

On p. 400 we have more of the *tendency*-explanation: "Something is necessary to distinguish the past participle, which is a continuative, from the past tense of a verb, which is a final, and from this feeling the merely enunciative half-sound of the *a* of *naṭanna* was emphasized, and thus gradually transformed into *u*." This line of explanation has the disadvantage of being as capable of being retorted as it is easy, and the slightest examination into the facts will show that it is neither capable of proof nor needing disproof. It was quite enough to have stated the difference and shown it more copiously; but it cannot lead to any trustworthy results to theorize thus isolatedly at every differentiated form.

As we have seen (p. 401) that Canarese has *d* as a preterite formative, and as *ti* is found after the *i*, which in Telugu always occurs as the other preterite-formative, he at once leaps to the conclusion that "we must regard *ti* as a sign of past time, subordinate indeed to the *i*, and unused in the third person of the preterite, but immediately allied to the *d*." Now, to have the slightest force, this should have been connected with a phonetic, showing the direction of such a change in Telugu as compared with Tamil and Canarese; but the phonetic of Dr. Caldwell's book only consists of a few scattered observations, and has

very little value, regarded from the point of view of a comparative study of the Dravidian languages. I have no intention at present of going into the phonetic, but, to justify what I have said, I will give what the student would find in Dr. Caldwell's Phonetic if he went to investigate this point of a Tamil-Canarese *d* being a *t* in Telugu.

On p. 117 Dr. Caldwell is treating of the sounds under a heading which he calls "dialectic interchanges," and the section on the dentals gives this analysis :

The dentals :—t, d, n.

t, or d changes into r in Tamil, *because* the r is pronounced *very like a dental*.

In Canarese *ad* sometimes becomes *ar*, as id-*ar*-a, of this, from id-u; but mar-*ad*-a, of a tree, from mara, because id-*ad*-a and mara-ra would have been monotonous (!)

This is perfectly gratuitous: the affixes of the pronoun and of the noun are really different, and the word *mara-* is chosen simply to beg the question, by taking a word with an *r*, so as to present an appearance of *necessitated* dissimilation. Then we are told that this change of *d* into *r* is found elsewhere, and followed up by a change of *r* into *l*, instancing the Hindustani *solah*, instead of so-*rah*, the *rah* standing for *daç-* (=decem) of Sanskrit. Now, in *bârah* = *dwâ-daçan*, with the dental d, this is correct, but *solah* is quite a different thing, for here the l is got from the lingual *ḍ*, into which the dental initial *d* of *daçan* is changed by contact with the final lingual *sh* of the Sanskrit *shash*; thus *shash* + *daçan* = *shoḍaçan*. But, according to a well-known law, the lingual *ḍ* and lingual *ḷ* are changeable, so that *shoḍasan* becomes *shoḷasan*, which finally results in the Urdu *solah*, but *r* does enter therein at all!

Then follows a hazardous speculation that the Bengali and Marathi *l*, instead of *d* or *t*, as a sign of the past tense, is owing to Dravidian influences. And the whole section winds up with the following piece of infor-

mation : "it may be noticed that the *Umbrian* also regularly changed *d* into *r*." There is no reason why this should stop anywhere, but it is totally out of place in a Comparative Grammar of the Dravidian.

There is nothing further about *d*, save a few lines on its change into *s* in Tamil and Telugu, which seem to rest on a mistaken idea. Thus he gives as an example of the change of *d* to *s*, the word *vayathu*, which according to him becomes *vayasu*. He could not have given a more unhappily selected example, for if there *were* change, it would be certainly the other way. The word is simply Sanskrit *vayas*, age, which, as Tamil appends a final indistinctly uttered *u* to its borrowings, became *vayasu*, but *-athu* being the Tamil neuter termination 'par excellence,' *vayathu* became a popular substitute, so that the theory of *d* becoming *s* in this word is incorrect.

To return to our examination of the verb. After having (on p. 394) arrived at the conclusion that *d* and *i* are "*distinct and independent*" signs of past tense, Dr. Caldwell now (p. 403), however, conjectures that this *i* was *originally a vowel of conjunction*, employed for the purpose of euphonicallly connecting the verbal theme, *and the true sign of past tense, d*; comparing the change with Latin *dom-i-tus* instead of *dom-tus*. Subsequently he adds, "we may suppose the true preterite *d* to have dropped off," &c. And he backs up his conjecture by the following *raisonnement* (p. 404) : "on comparing the Tamil verbs which form their preterite in *i* with those that suffix *d*, no reason but euphony can be alleged why the one suffix should be employed rather than the other: *consequently, euphonic causes must have contributed to the development of i.*" Yet, just ten pages before, he had concluded that they were distinct and independent signs!

He continues his speculations : this Dravidian *d* has an ultimate connexion with the passive *t* of the Sanskrit, as in *jñā-ta*, *γνωρός*, &c., but "the use of this suffix is too essential

a characteristic of the Dravidian languages, and too *rare and exceptional in Sanskrit* to admit of the supposition that the former borrowed it from the latter." It will be something new to Sanskrit scholars to learn that the passive *ta*, as *jnâ-ta*, *jnâ-twâ*, *jnâtavân*, &c., is "rare and exceptional."

Dr. Caldwell has expressed himself incautiously, for he means "the use of this passive suffix with certain neuter verbs as a mere *preterite*, as *gata*, *bhûta*, &c." However, he has himself immediately after shown, in the *vat* participle, how this passive is used as a preterite active, *kritavân*, I have made. The whole disquisition winds up to this effect: "it has been my object to point out in Sanskrit, &c., the existence of a mode of forming the *preterite* which closely resembles that which forms a characteristic of the Dravidian languages," which he proceeds to nullify by exhibiting a few forms of Turkish, Finnish, and Hungarian, by which it appears that their signs of the preterite are *totally unconnected with* the passive participle; adding that "the analogy between these Turko-Ugrian languages and the Dravidian may be said to amount to an *identity*."

In the future we have also two formations. The first is made by inserting in Canarese *iy* or *i*, or *d*, between the theme and pronominal signs. So Telugu inserts *ê*, *î*, or *eda*. On this point we are not instructed further. A curious reader might wonder if the analysis which produced such a result as apparent identity of suffix for *past* and *future* was precisely to be relied on!

In Canarese we have *mâdidënu*, I did, and

mâdidënu, I will do,

and the two words are not identical. It is impossible here to do more than call attention to the *long* vowel following in the future tense, as this would involve a too extended consideration of the pronominal endings. And

with what success these pronominal forms have been investigated, I shall show briefly further on. But indeed it is pretty nearly useless working with the modern forms of the Dravidian languages, and I regret much that Dr. Caldwell makes so little use of the older grammatical inflexions. I repeat, before we do anything in the comparative grammar of these tongues, there must be considerable progress made in the investigation of the phonetic and morphology of each member of the group in its oldest form.

The second formation of the future is *v* or *b*, or *pp*, which *may*, he says, have affinities with the Bengali *v* (*b*), and the Latin *bo*, &c. So just in the same way anybody who has ever heard a Chinaman pronounce the word for 'man,' commonly spelt *gin*, but which *sounds* very like *jen*, might say, that the Chinese word possibly had affinities with the French word *gens* !

There is a very curious phenomenon in the third singular neuter of the future, in Tamil and Telugu, which is formed by appending to the root the syllable *um* in Tamil, *nu* in Telugu, which are the equivalents of Latin copulative *que*. Dr. Caldwell cannot be said to have thrown much light on this by his theory : " It is probable that this particle has been chosen to be the characteristic sign of the aorist, because of its suitability to express the idea of *continuity*."

The one outcome of his consideration on the relative participles, a very peculiar feature of the Dravidian (and very inadequately treated, as at least two important Telugu affixes, negative *ni* and aorist *ê*, receive no kind of elucidation,) is that their final *a* is identical with *a* the sign of the possessive case. I can only say that I do not accept final *a* as their characteristic sign, nor *a* as that of the possessive case, nor do I believe in the identity of the two. But it is quite immaterial, for all here is in the shadowy regions of pure speculation.

At p. 416, is a section headed "Formation of Moods," which comprises much baseless theorising. Thus, to express the subjunctive mood, the Dravidian languages make use of particles appended to some form of the verbal theme; now in Tamil (colloquial) one of the most common particles is *ál*, added to the past relative participle, thus sey-thu, having done, but sey-thál, if (I, thou, &c.) do. As Dr. Caldwell has no Dravidian explanation on hand, he resorts to the theory that *ál* has been corrupted from *kál*, the Sanskrit *kála*. Now to maintain that a *colloquial* form could have arisen thus, would need a vast amount of evidence, and none is forthcoming, and yet Dr. Caldwell actually prefers this most unlikely theory to another which he mentions, viz., that this added *ál* is the same as the *ál* by which the instrumental case is formed regularly in Tamil; notwithstanding that just before he had explained the *in* which is also used to express the subjunctive, by the *in* which is the locative case-sign in Tamil, and had even on the strength of this gone the length of asserting that the Telugu *in* of the subjunctive must therefore be the same as the *na* or *ni* which the Telugu uses as a locative. To show the exceeding improbability of any such rapprochement, I might put it somehow thus: there is in Telugu an affix *na*, occasionally used as a sign of the locative case, ex. gr. *oddu*, a bank, *oddu-na*, on a bank. There is also an affix *in* used in Telugu occasionally, to express the subjunctive, as in *chûch-in*, if I see. Now as in Tamil, the particle *in* is used to express both the locative relation and the subjunctive relation, therefore the Telugu particle *na* must be the same as *ni*, and so, the same as *in*! No more unwarrantable extension of comparative grammar could be made; in fact it is an abuse of the term "comparison;" it is a violent imposition of uniformities! Now the only reason for perpetrating this act of tyranny, was to get a cover for the theory that the subjunctive affix is based on

the case-sign, and yet directly after, in the case of the identity *manithan-âl*, by a man, and *seyth-âl*, if I did, &c., Dr. Caldwell prefers to have recourse to Sanskrit for the explanation of a *colloquial* form.

And what shall we think of this? *Kêdu* means do thou spoil, *kêd-um*, do ye spoil (imperatives), whereupon Dr. Caldwell makes it appear that *kêdu* is a verbal noun, to which is *appended* the oblique form of the pronoun *um*, which he gives as a proof "that the imperative in Tamil has the grammatical significance of a verbal noun, and that it is the context, and *the energy of its enunciation*, that constitute it an imperative!"

To assert that a *possessive* pronominal particle could be *appended* to a noun in Dravidian in this manner is simply to go dead against the fundamental laws of the language; and in any case to assert that the *pluralizing* particle *um* is the sign of the oblique case of the pronoun, in the imperative, is a speculation that has nothing to recommend it.

The infinitive is formed by adding *a* to the root. This Dr. Caldwell takes as a softening of a termination *al*, just as *a*, the negative verbal sign, comes from *al*, a negative particle. I dissent from both explanations, simply on the ground that we have no real evidence laid before us, and individual theorizing has none of the elements of finality. Here is its rider—our familiar man of straw (p. 427):—"On the supposition that the Dravidian infinitive terminated originally in *l*, there is a remarkable, but probably accidental, resemblance to it in the Armenian, in which *l* is the infinitival suffix, *c. gr.* *ber-e-l*, to carry, compare Tamil *poral*, to bear," whereby we are probably meant to realise *ber* = *por* as well!

So on p. 430 we get the Tamil abstract suffix *mei*, as *poru-mei*, patience, from *poru* to bear, equated variously, ending as follows:—"Possibly we may also compare with this Dravidian *me* or *mei* the Old Greek infinitive in $\mu\epsilon\nu$!"

On p. 433 he briefly mentions, without apparently any idea of its importance, the fact that derivatives are formed sometimes from verbal roots, by lengthening the included vowel of the monosyllabic verbal roots; thus, *pādu*, suffering, from *padu*, to suffer. So even in concretes, *e.gr. nākku* the tongue, from *nakku*, to lick. Now, if he had given a list of such formatives, and traced them through all the Dravidian languages, he would have done a considerable service to their comparative grammar. But there is nothing of the sort, and the reference to the section on roots is equally barren, as he there only gives four more examples, adding that (p. 168) he is not aware of any similar rule in any of the Scythian languages, but that it is well known to the Sanskrit, comparing *vach*, to speak, with *vāch*, a word—a needless illustration, as the principle is really Dravidian, not a borrowed principle, and should have been investigated on its own merits.

The analysis of the verb can hardly be closed without taking in some consideration of the personal pronouns, for the personal terminations are distinctly pronominal fragments, added on to certain determinate verbal forms. It will be sufficient to take the *I* and *you* series, and give Dr. Caldwell's analyses of these.

A most characteristic element in these pronouns is, that the stem to which the casual affixes are appended, [which affixes are generally the same as for nouns,] can be used in its crude form as a sort of possessive pronoun, somewhat resembling the Tatpurusha compound of Sanskrit grammar. To make this clear, and to show the identity of nominal and pronominal declension : in Tamil the first personal pronoun is thus declined :—

	Pron.	Noun.
nom.	<i>nân.</i>	tagappan-
gen.	en(n)uḍeiya.	uḍeiya.
dat.	enakku.	ukku.
accus.	en(n)ei.	ei.
addit.	en(n)ôḍu.	ôḍu.
instr.	en(in)âl.	âl.
loc.	en(n)il,	il.

For "my book," we can say *ennuḍeiya puttagam*, or simply *en puttagam*. This analogy runs through the other pronouns; but the point here intended to be noted is, that the prevalence of this *en* shows, as Dr. Caldwell fairly infers, that the nominative must have been *en* (ên), which also indeed is found in the verbal terminations, *e. gr.* pann-in-ên, I did. Whence then the *present* form of the nom. *nân*? As in the High Tamil, we have a form *yân*, Dr. Caldwell concludes that *nân* was the primitive form, the initial *n* being softened into *yân*, and then abandoned (p. 293). Clearly, this conjecture would need to be strengthened by a reference to the phonetic. If we turn then to the phonetic, on p. 118 we find:—"n is changed into y. This change rarely occurs; but we have *an* indubitable instance of it in the change of *nu* the Telugu copulative conjunction into *yu*." This is surely insufficient to establish any conjecture, and may be compared with the speculations of Mr. Pope as to a prefixed *n* in *nâm*, given in p. 96, note. But let us suppose we have got *nân*.

In the plural crude form we have *nam*, *yam*, *em*. Now, in High-Tamil, *we* walked is *naḍandanam*, or *naḍandanem*; but then, Dr. Caldwell says, the *n* is *merely cuphonic*, and *naḍanda-am*, or *em*, becomes by sandhi *naḍandêm*, a more common, but not so correct form as *naḍandôm*. Next, Dr. Caldwell says *ôm* could not spring from *êm*, but might from *âm*, just as *âgum* becomes *ôm* [the example is of quite different kind].

This is supposed, then, to strengthen the *nân* form.

But, it will be noted, this inference, such as it is, is made *solely from* the Tamil; and, after having made it, Dr. Caldwell proceeds to *apply* it to the other sister languages.

Now, if we look for a moment at the oldest forms we can get therein, we shall find:—

Old Canarese.	Old Telugu.	High-Tamil.
<i>ân.</i>	<i>ên-u.</i>	<i>yân.</i>
Colloquial Mod. Canarese,	Mod. Telu.	Mod. Tam.
<i>nânu.</i>	<i>nên-u.</i>	<i>nân.</i>

Add to this that the Ku nominative is *an-u*, the Gônd is *anâ*, the Rajmahali is *en*, the Uraon is *enan*.

In the face of all this, Dr. Caldwell says (p. 296), that the final *n* of *nân* does not “appear to belong to the root.” As the plural is *nâm*, which is paralleled by the dialects, he finds *m* to be the plural sign, whereas the final *n* in *nân* he regards as “*merely euphonic*.”

Sum total, then, *nâ* is to be regarded as the primitive form. There is not thus far any ground really for fixing on *nâ*, for *ên* would be a far more natural inference on the total of the facts given. At any rate there is no criterion by means of which we may weigh the inferences; which is precisely the defect of method of which I complain. There follow then a few pages of desultory theorizing, in which all sorts of languages share, but which only serve to distract the attention from the real point to be considered. The statements are in themselves, I dare say, true, but I shall not follow Dr. Caldwell into them, because I do not know half the languages he speaks so familiarly of, and I totally distrust any handling of grammatical forms by persons unacquainted with the practical workings of the grammar as a whole. The analogies are drawn too widely, and at

random, and within a few pages are quoted forms from Chinese, Mikor, Mingrelian, Magyar, Mordwin, Ostiak, Cinghalese, Tibetan, Tetenge, Quasi Qumuk, Australian, Motor, &c., &c., &c. This is Saul's armour. I, at least, cannot assay it, and I don't trust it.

But to return. We followed Dr. Caldwell to his inference that *nā** is the primitive Dravidian form of the first personal pronoun; what of the second personal pronoun?

* In Col. Marshall's interesting book on the Todas (London, 1873), we find several notes, held by him to possess considerable value, as coming from the pen of "the eminent philologist, and great Tamil scholar, Mr. Pope" (Pref. viii.) Here are a few examples. On p. 246, Mr. Pope has compared the Toda first personal pronoun *ān* [I] with the "very ancient form Skrit. *aham*." He could not conceivably have made a more indefensible comparison, for whatever be the origin of Skrit. *aham*, at least it is certain that it contains a guttural, *aḥam*, *ἰγών*, *eg-o*, *iḥ*, &c.; and it is equally certain that the Dravidian knows nothing of such a guttural,—*nān*, *ēn*, *yān*, being the predominant forms. The equation of the two words is impossible under such circumstances; but, of course, the guttural-argument will only be felt as an argument by those who know the real relations of the Skrit. *aham*. Mr. Pope thinks it worth his while to add:—"Nor can I think it clear that *ōm* is not related to the Skrit. *vāyam*, or to the Greek *ἡμεῖς* or *ἄμεις*, and Vedic *asmē*." Once the habit is acquired of making hasty equations, it seems to possess a fatal attractiveness, probably explicable on the principle of Mill, as interpreted by Mr. Sully:—

"The main element in this desire is the mind's aversion to a state of pain resulting from an *unsatisfied prompting of the active forces*." The habit-philologist scents a good thing with vulture keenness, when nobody else even suspects it. He thus comes to see all things in a wrong light, and so is constantly making raids on unoffending windmills. Mr. Pope puts himself out of court in a matter of his own special subject, by this unnecessary exhibition of weakness on the general principles of the study. Thus he supposes himself to have supported his view that *ām*, not *nām*, is the primitive form of the plural of the first personal pronoun, by the statement, that "the Dravidian languages prefix *n* to several words which they have received from other languages." Now, this should be a very easily proved and very certain proposition, before it can possibly be used in support of a questionable case, and Mr. Pope ought, one thinks, to be able to quote good trustworthy examples of the phenomenon. Here is one of his examples:—"Nangūram is the form in which the word *anchor* has settled down in the Dravidian dialects." The word is certainly *nangūram*, but we need not connect it with the English word *anchor*, for there is nothing to

Tamil.	Telugu.	Canarese.	Malayal.
<i>nî.</i>	<i>nî-vu.</i>	<i>nîn-u.</i>	<i>nî.</i>
crude form <i>un.</i>	<i>nî.</i>	<i>nî.</i>	<i>nin.</i>

In High Tamil we have for the crude form *nin*, *nun*, and *un*.

In the personal terminations of the verb, however, the initial *n* disappears, and we get *i*, *t*, *iyē*, *e*, [and *ây*], for Canarese; *ây*, *ei*, and *i*, for Tamil. Dr. Caldwell concludes that the primitive form was *nî*, *nû*, or *na*, probably the

hinder its being regarded as a modification of the Persian word *langar*, which Tamil has in the form of *ilangaru*, and Telugu in *langaru*, and is precisely paralleled by the facts with which we are familiar in a different sphere, *ex. gr.* in the Fr. *niveau*, compared with its origin, Lat. *libella*, &c. That *-âr* may have been influenced by the English word *need* not be denied. Mr. Pope's second example, Tamil *nuga*, from Skrit. *yuga*, may or may not be correct. But how can such examples be adduced as the needful support of a case in the pronouns, of a presumed prefix of *n* within the same language? Let it be even granted that Tamil *nuga* = Skrit. *yuga*, how does this help the assumption that Tamil *ndm* is possible from a Tamil *dm*?

I do not know how far Mr. Pope is to be held responsible for all the statements of Col. Marshall; but, on p. 69, note 3, we find the Toda word *tig-galu*, the moon, Tamil *tingal*, analysed as follows:—"Ti is a part of dina = day. Glau = the moon, Sansk." Now here, neither phonetic nor signification is satisfied, for, as for the meaning, plainly *ti* is superfluous and indeed incorrect, and the difficulties in the way

of the phonetic are enormous. *Glau* itself is far too rare a Skrit. word to have been borrowed by Toda or Tamilian. But *dina* could not become *ti*, and *glau* could not become *gal*, whatever be the origin of the word.

On p. 70 we have *popen*, a male child, compared with *puppet*; p. 77 gives us the following specimen:—"In Tamil *annan* = elder brother, the Dravidian root *ana* = upper, and may be compared with the Greek *ἀνά*." As to Colonel Marshall's own speculations, they are delightful; *ex. gr.* on p. 83 he naively asks:—"May not the French *chien* be derived from [Dravidian] *chen* = the red (one)?"

I may add, that the grammar of the Toda language (by Mr. Pope), at the end of the book, is of course welcome for the lists of words and the paradigms, so far as they go; but when will practical linguists, missionaries, &c., learn that comparative grammar is not a sphere for mere ingenious guess-work? It is by this spasmodic, arbitrary, subjective equation of accidentally congruent sounds for the same thing, that the whole subject has been brought into contempt.

first (p. 309), and then goes on:—"The only essential part of the pronoun appears to be the initial *n*." It would be quite possible to assert that the *n* of *nān* has as much right to be regarded as essential as that of *nt*. Dr. Caldwell continues:—"Supposing *nt* to be the primitive form of the Dravidian pronoun of the second person, and comparing it with *nā*, it is *deserving of notice* [it hardly needs so to be introduced!] that the only difference between the two is the difference between the two included vowels *a* and *i*." This he *explains* by the following sentence:—"The consonant *n* seems to be the common property and the common sign of both pronouns, and the *means by which their personality* is expressed; whilst the annexed *a* restricts the signification to the first person, or that of the speaker; *i* to the second person, or that of the person addressed." He then asks:—"Whence the *a* and *i*? Are they demonstratives?" But *a* is the remote demonstrative, and *i* is the proximate in the Dravidian family; therefore, that supposition is not tenable. And, finally, in sheer despair, one would think, he finishes by this query:—"Is any weight to be attributed to the circumstance that *a* has naturally the first place in all lists of vowels, and *i* the second?" Further than that we cannot go: it is a bottomless abyss of speculation.

In the sections on "extra Dravidian relationship," what Dr. Caldwell proves is the impossibility of working convincingly with such heterogeneous material.

This seeking for analogies is fatal to real research. As the author writes about his Dravidians, he has his hand on his note-books, filled with all sorts of languages and dialects, and he plunges his readers into a perfect jungle of forms, out of which it is difficult to emerge. There is little to criticise when it comes to the point, because all is so vague and shadowy that it slips from the grasp. We learn nothing from the whole disquisition (which occupies twenty-three pages) about the two per-

sonal pronouns, but what the most casual observer would leap at on the first attempt he made to learn Telugu, when he says :—

ná pustakamu, my book ;
ní gurramu, thy horse, &c.,

One may differ from Dr. Caldwell as to the result ; one must differ from him in his adoption of so fruitless a method.

I have taken these examples of his analysis of the pronouns, because the verbal forms are evidently mainly agglutinative. And here, unfortunately, Dr. Caldwell fails us just at this point where we need explanations, for we have no account of the personal terminations of any tense, and the student would seek in vain for information as to how any Dravidian language conjugates its verb. But suppose him to know this from other sources, he would at once be struck with the fact, that this agglutinative language has *ná* and *ní*, (according to the above analysis,) as its material on which to work for pronominal endings of the first and second persons singular, and yet, that *every tense of the verb* differentiates these persons by an *n* and *v*, respectively!
ex. gr. :—

Telugu.

	Present.	Past.	Future.	Aorist.
1.	pamputunnánu.	pampitini.	pampedanu.	pampudunu.
2.	pamputunnávu.	pampitivi.	pampedavu.	pampuduvu.

I have not thought it necessary to enter into the question of the third personal pronoun, and its relations to the concrete verbal terminations. But, to show how very far indeed from being complete is the work as it stands, I will give the forms of the Telugu third person singular, asking the reader to note the form of the pronoun arrived at previously (p. 77) in Dr. Caldwell's analysis, viz., *du* :—



Aorist.	Preterite.	
1. iṣṣudunu.	iccitini.	pl. icci- ti mi.
2. iṣṣuduvu.	iccitivi.	icci- ti ri.
3. iṣṣunu.	iccenu.	icci- ri .

These most characteristic forms, involving, besides, the omissions in the third persons, both singular and plural, of what may be regarded as the tense-signs, receive no attention, though this abnormal *n* (in sg.) brings the Telugu ending nearer to the endings of Tamil and Canarese.

I conclude this analysis with one more instance. The plurals are—Tam. *nām*, and (Old Canar.) *nīm*. This pluralising *m* Dr. Caldwell supposes to be the copulative particle *um* of the Tamil. Thus *nām* would be *nā-um*, egoque, and *nīm*, *nī-um*, tuque (p. 329). Now, the plural of the imperative is made by adding *um*, as *kēḷ*, *kēḷ-um*, and *this um* Dr. Caldwell supposes (p. 307) to be the *um* of the ordinary plural base of the oblique cases, *i. e.* he rejects the copulative, to adopt a form which is wholly repugnant to the very genius of the Dravidian languages, viz., the *appending* of a crude form of the pronoun to any verbal noun. So, on p. 421, he repeats, “*kēḷ-um*, spoil ye, is formed by suffixing to the verbal theme, not *nīr*, you, but *um*, your, the form of the pronoun which is used in construction with nouns.” But the form with nouns, as *um* puttagam, your book, always *precedes* the noun, and is inconceivable as *following* it.

All through the book indeed there is wanting the firm ground of an ascertained phonetic, along with the resolution to allow no allurements of explanation to have influence enough to entice to the infraction of the fundamental principles of the language. And further, the acknowledged facts of European philology are not to be ignored by the introduction of totally indefensible comparisons.

Nothing will be lost to the value of the book by the omission of items such as these from the glossarial affini-

ties. I shall not need to quote more than a few of Dr. Caldwell's speculations in his chapter entitled "Glossarial affinities," to show very clearly what his standpoint is, and how little reliance is to be placed on a great number of the comparisons there given. In p. 461, on Tamil *nin-ei*, to think, he suggests that "μνάομαι, and μένος, wish, are in perfect accordance with Sanskrit *mana* [sic], and are probably more ancient than νόεω, of which the initial *v* has been possibly changed from *μ*" [!]

(p. 457) *καίω* is connected with Dravidian *káy*.

(ibid.) *κυριακή*, Sunday, having been assigned as the possible source of the Ossetic *kuri*, a week, is connected (rightly enough) with κύριος, of which, he says, the base seems to be allied to the Tamil *kira*, possession.

(p. 463) *pampu*, to send, is compared with πέμπ-ω;
pale (Canarese), with παλαιός.

(p. 464) *piykkku*, to card, &c., is compared with πέκω, and English to *pick*!

(ibid.) on *puella*, he says: if the Latin word is derived from *puerulus*, it is probably unconnected with Tamil *pillei*, child.

(p. 466) *pēy*, a demon, is compared with English *fay*, Fr. *fée*!

(ibid.) *pō*, to go, is connected with βά-ω, Lat. *va-do*, and Hebrew *bo*.

(p. 470) *vrāy* (Telugu), *eṛuthu* (Tamil), to write, is compared with our English word to *write*!

See on p. 319 a wonderfully curious specimen of what this sort of thing leads to, in his connexion of the Greek *τᾶν* in ὃ τᾶν with the Dravidian honorific pronoun! I could not possibly think of spending much time or paper over such speculations, but will content myself with giving one entry entire.

(p. 474) "sev-vei, *equal, level, correct*: base *śev* or *se*. A nasalised adjectival form of the same root is *śen*, *ex. gr.*

sen-Tamil, correct Tamil, the classical dialect. From *se*, *sev*, or *sen*, is formed *sem-mei* [= *sen-mei*], an abstract of the same meaning as *sev-vei*. Compare Hebrew 'shāvāh,' Chaldee 'shevā' (biliteral base 'shav' or 'shev') to be equal, to be level. If the Sanskrit 'sama,' *even*, is at all connected with the Tamil 'sev' or 'sen,' the connexion is very remote; whereas the Tamil and the Hebrew word seem to be almost identical." [!]

One more specimen from another side, and I will conclude. In the numerals we find *oru* = one, in the dialects and Tamil, but Telugu has *oka*. The root of the numeral is *or*: the question is, how to mediate between that and the Telugu *oka*? I can hardly make clear by what an unjustifiable set of assumptions Dr. Caldwell accomplishes this etymological feat. In Telugu *pada* is ten, and eleven is *padakonḍu*, *i. e.* *padaku* + *onḍu* = one to ten, *padaku* being the regular form of the dative in Telugu; but this does not satisfy Dr. Caldwell, who writes:—"If the *k* is euphonic [!], and is intended to *prevent hiatus*, then *kondu* is *k-onḍu*, and *onḍu* is allied to the Canarese *ondu* from the root *or*" [thus *oru*, *onru* became (cf. ἀνρός, ἀνδρός) *onḍru*, *onḍu*,—which is quite correct, and in harmony with the phonetic]; "but if," he continues, "as appears more likely, the *k* is radical, the crude adjectival form from which it was derived may have been *kor*," which he then takes to have been the original form of the Tamil-Canarese. And, having thus constructed this figment *kor*, he next supposes *kor* and *oka* to be allied, by the corruption of both from a common root! This chapter on the numerals can hardly be regarded as a success. One point in the section worthy of notice is his explanation of the forms involving *nine*, in which he has, no doubt, hit the mark.

But these are considerations which none will realise who are not practically acquainted with one of the Dravidian languages, and which, therefore, I will not press, as I

am urging here the wrongness of the method pursued, rather than the untenableness of the results at issue. If Dr. Caldwell will give us full (comparative) tables of the forms, and exhibit their genesis from the oldest attainable or primal form, by a reference to a thorough, scientific *phonetic*, in place of a great part of the miscellaneous congeries of analogies, which swell without nourishing the book, he will, it can hardly be doubted, do yeoman's service to his book, and considerably benefit the interested public.

Circumstances over which I had no control led to the postponement of the publication of this Number of "Hermathena" till after the Vacation; so that, since the preceding pages were printed, I have had the opportunity of seeing the second edition of Dr. Caldwell's Grammar. I need hardly say, of course, that it is very considerably enlarged and improved. Thus we have now the comparative paradigms of a Dravidian verb (pp. 442-451), and of the pronouns 1 and 2 perss. on pp. 310-311; but the methodic phonetic is as far from realization as ever, and the difficulties of investigation are so much heightened by the introduction of many fresh analogies, and different opinions, that I fear the task of *getting at* the Comparative Dravidian Grammar is relegated one step farther back. Thus, to take an example in the matter of phonetic, we have on p. 262 the following sentence, which is sufficiently startling:—"If *y* (य) were usually pronounced with a slightly nasal sound, it would naturally become *ñ* (ञ) and this would naturally harden in some instances into the *n* of the dental series (न), possibly even into *ṇ* (ṇ), and *m* (म)." Now, what is desirable here is, that there should be real investigation into the conditions and cases in which such a series of possibilities is allowed, as य = ञ = न = ṇ = म. My objection is,

not certainly that this is wrong, but that nobody can know that it is correct: it has nothing of the finality of objective investigation, but only the weight of subjective speculation.

The second fundamental ground of objection I have to the structure of the work, is the treatment of hiatus-avoidance, an objection contained in the sentence on p. 72 (*supra*), in reference to the original consonantal terminations. That no step has been taken towards the solution of this question, is evident from the following passage (p. 261):—" (Is the initial *n* of the Tamil *radical* ?) Clearer evidence might perhaps appear to be furnished by the relative participles of the preterite Tamil verb, which may take either *y* or *n*—e. g., *solliya* or *sonna* (for *sollina*); with respect to which it *might be concluded* that *y*, being *considered more elegant, is also more ancient*. This, however, seems to me doubtful, seeing that the use of *n*, as in this case, *to prevent hiatus*, is capable of being traced back to a very early period in the history of the language."

By all means let us have its tracing back, and not only that of *n*, but of every letter, and we shall have occasion to come to different conclusions on many important points.

That *n* in inlaut may be affected differently from *n* in anlaut, and a possible *n* in auslaut, does not seem to have struck Dr. Caldwell. The uncertainty of the whole subject may be seen from two sentences on the same page:—"We see therefore the possibility of a primitive Dravidian *yán* changing into *nán*", while just before he had said; "the only instances of the change of *y* into *n* that are *quite reliable*," [and even the trustworthiness I do not acknowledge,] "are those that are seen in Sanskrit *tadbhavas*," i. e., *not* primitive Dravidian words.

As to the details of my paper, they would remain nearly the same if I were to re-write it; thus on p. 66 the

Hungarian comparison is modified, but still kept; it is still misleading, and should have been omitted. The 'hardening' explanations, the 'euphonic fulcrum', are maintained. The men-of-straw have not been removed, and much of the theorizing objected to, *ex. gr.*, on p. 82, in reference to the Semitic suffixes and prefixes, has not been disturbed (p. 373); where also may be seen (p. 372) the Welsh *hwyt* unaltered (*v. supra*, p. 81), &c., &c.

I do not think, in fact, that the book could gain by *addition*. If it is to take a place side by side with the real scientific comparative grammars of our times, it must be handled far more in the sphere of these languages themselves, and with far less reference to the phenomena of the outer world of languages. Of course, analogies may be multiplied *ad libitum*, and are interesting enough, but they are out of place in a comparative grammar. A student of Indo-Germanic grammar, who finds difficulties in the way of explaining the Greek aspiration in perf. $\pi\acute{\epsilon}\text{-}\rho\omicron\mu\phi\text{-}\alpha$, and the *ka* in $\pi\epsilon\text{-}\phi\acute{\iota}\lambda\eta\text{-}\kappa\alpha$, is not justified in flying for explanation to Hebrew or Chinese, or wherever a preterite-affix *ka* might be found. Neither is a Dravidian scholar justified in having recourse to Sanskrit or Hebrew for analogies, which often do duty as explanations of difficult forms in Dravidian. I will only add, that there are two capital improvements in the book, viz., a table of contents, and an index.

NOTE on p. 73.—It is well known that in Irish, after certain words, the initial of a word following is liable to undergo various alterations. Thus, *ex. gr.*, after the word *ar*, our, an initial *p* following becomes a *b*, and *c* becomes *g*, while an initial vowel has an *n* prefixed. Thus the words *pian*, pain, *ceart*, right, *athair*, father, are written as follows:—

ar *b*-pian, our pain;
ar *g*-ceart, our right;
ar *n*-athair, our father;

where it would, perhaps, be better to drop the tenuis, as it is entirely displaced in pronunciation by the prefixed media.

Now, in Telugu, after an infinitive form in *a*, if we append a governing word, beginning with tenuis or vowel, precisely the same effect is produced. Thus, after *ceda*, to be ruined, *ceppa*, to say, if we add *akkara lldu*, 'there is no need', or any of the forms of *padu* or *kottu*, we shall have:—

ceppa-*n*-akkara-lêdu,
ceda-gottu,
ceppa-*ba*du.

That is, a vowel prefixes *n*, and the initial tenuis becomes a media, exactly as in the instances above given from Irish.

The explanation in both cases is precisely the same. It is owing to the action of an original nasal termination. The real prefix in the Irish is not *ar*, but *arn*, and in Irish "our father" might

be better exhibited as '*arn* athair,' just as in Telugu the sentence quoted might be given '*ceppan* akkara lêdu;' i. e. the infinitival form ended in *an*, and not *al*, as Dr. Caldwell suggests. The termination *an* explains everything, for the modification of the tenuis into the media observable in *ceda gottu*, and *ceppa ba*du, is owing to the same influence of the nasal as in *ar b(φ)ian*, *ar g(c)eat*.

ROBERT ATKINSON.

ATAKTA.

THUC. II. 37.

Οὐ δι' ὕργης τὸν πέλας εἰ καθ' ἡδονήν τι δρᾷ ἔχοντες, οὐδὲ ἀζημίους μὲν λυπηράς δὲ τῇ ὄψει ἀχθηδόνας προστιθέμενοι.

PERICLES, in his famous panegyric on Athens, is here extolling the "sweetness and light" of the Athenians. "We do not," he says, "look sourly at a man because his pleasures, habits, &c., are different from ours." But I think the word ἀζημίους has always been wrongly explained, and thus a very pointed and characteristic utterance of the great Athenian has been blunted. ἀζημίους is taken to mean *harmless*, and the sentence is explained, "we do not wear those sour looks, which offend our neighbour, while they do him no real harm." Now ἀζήμιος, in classical Greek, always means not *harmless* but *unpunished*; and so it should be explained here. The sentence may then be paraphrased, "we do not wear those sour looks, which, *though there is no fine attached to them*, morally constitute an affront." The Athenian orator, speaking in law-loving Athens, says justly, that there are sour looks which are as much an affront as many of the forms of ὕβρις or αἰκία, against which the law of Athens so carefully protected her citizens. I may add (though it does not concern the point to which I have adverted) that I think τῇ ὄψει should be taken with προστιθέμενοι. If it be taken with λυπηράς it will be hard to defend προστιθέμενοι in the sense of *wearing*, which would rather require προστιθέντες, but τῇ ὄψει προστιθέμενοι means, literally, "adding to the face," that is, "wearing on the countenance."

THUC. II. 43.

δι' ἐλαχίστου καιροῦ τύχης ἅμα ἀκμῇ τῆς δόξης μᾶλλον ἢ τοῦ δέους ἀπηλλάγησαν.

It is the easiest course to take τύχης with ἀκμῇ, and govern δόξης and δέους by ἀπηλλάγησαν, as Arnold does; but in so doing, we are in conflict with the Scholiast, Dio Cassius, and Arrian, who clearly take ἅμα ἀκμῇ τῆς δόξης together.* Those who follow these last take together δι' ἐλαχίστου καιροῦ τύχης, but I confess I cannot understand what δι' ἐλαχίστου καιροῦ τύχης could possibly mean. I would rather take τύχης with ἀπηλλάγησαν, "in one brief instant, at the height of their glory, not their fear, they left the sphere of chance for ever." He had just said ἐλπίδι μὲν τὸ ἀφανὲς τοῦ κατορθώσιν ἐπιτρέψαντες. Poppo alone seems to have felt the difficulty of ἐλάχιστος καιρὸς τύχης, which he explains as "the momentary chance of distinction which fortune threw in their way," but it is very hard to find this in the words. If we must take these words together, would it not be better to regard this as one of the coincidences in style between Thucydides and Sophocles, who uses τύχη for *issue, event*, in Trach. 744,

τὴν ἐλπίδ' οὐ χροὴ τῆς τύχης κρίνειν πάρος;

The sense would then be "in that brief moment in which the issue was decided, whether they should live or die."

THUC. II. 65.

σφαλόντες δὲ ἐν Σικελίᾳ ἄλλη τε παρσκευῇ καὶ τοῦ ναυτικοῦ τῷ πλείονι μορίῳ καὶ κατὰ τὴν πόλιν ἤδη ἐν στάσει ὄντες τ ρ ί α μ ἐ ν ἔ τ η ἀντείχον τοῖς τε πρότερον ὑπάρχουσι πολεμίοις καὶ

* ἀκμαζούσης ἐν αὐτοῖς ἐτι τῆς δόξης (Schol.); ἐπικεικῶς ἄρξας ἐν ἀκμῇ τῆς δόξης ἀπίθανε (Dio Cassius, lxvi. 18); καὶ πον τυχὸν καὶ ἄμεινον αὐτῷ ἦν

ἐν ἀκμῇ τῆς τε ἄλλης δόξης καὶ τοῦ πόθου τοῦ παρ' ἀνθρώπων ἀπηλλάχθαι (Arrian, Anab. vii. 16).

τοῖς ἀπὸ Σικελίας μετ' αὐτῶν καὶ τῶν ξυμμάχων ἐπὶ τοῖς πλείοσιν ἀφεστηκόσι, Κύρω τε ὕστερον . . . προσγενομένῳ κ.τ.λ.

What three years? Krüger says, from B.C. 411 to 408; Arnold, from 407 to 404; but even were there no historical difficulties in the assignment of three years as the period during which the Athenians held out after the Sicilian disaster, the particle *μὲν* defies explanation. Classen actually adopts Haack's *δέκα* for *τρία*, but this course is, indeed, to cut the Gordian knot, nor does it touch the difficulty of *μὲν*. I suggest that *τρία* is corrupt, and that *μὲν ἔτη* form one word. In—*τρία* survive the last two syllables of *καρτερία*, and the sentence should run *ἐν στάσει ὄντες καρτερία μενετῇ ἀντεῖχον κ.τ.λ.* The word *καρτερία* is not found in Thuc., but occurs both in Plato and Xenophon in the sense of *endurance*, in which sense the verb *καρτερεῖν* is used by Thucydides himself in this same book, chap. 44. *Μενετός* is found both in Thucydides and Aristophanes, in the sense here ascribed to it.

CIC. AD ATT. VII. 2, 4.

"Filiola tua te delectari laetor, et probari tibi *φυσικὴν* esse τὴν πρὸς τὰ τέκνα. Etenim si haec non est, nulla potest homini esse ad hominem naturae adiunctio; qua sublata vitae societas tollitur. *Bene eveniat*, inquit Carneades: spurce, sed tamen PUDENTIUS quam Lucius noster et Patro, qui, quum omnia ad se referant, nec quidquam alterius causa fieri putent non intelligunt se de callido homine loqui, non de bono viro."

This passage has not been well treated by the commentators. *Pudentius* of the MS. has been unanimously and without hesitation replaced by the conjecture *prudentius*, and for the explanation of *bene eveniat*, we have been referred to a guess of Casaubon, as in the following note, which I translate from Boot's Commentary:

"*Bene eveniat*. In these words, which correspond to the Greek εὖ ἔστω, or εὖ πάθωμεν, there is nothing indecent (*nihil spurci*). But

Bosius and others have rightly observed, that some indecent word has been suppressed by Cicero. Casaubon acutely perceived that what Carneades said was *τύχη ἀγαθῇ παιδοποιῶμεν*. I have restored *prudētius*, which is well defended by Lambinus and Ernesti; for in what follows there is no *impudentia*, but, while Carneades was at least self-consistent, the Epicureans were *imprudentes*, *non satis acuti*, in not observing that they ascribed to their good man what was really the conduct of a crafty man, who in everything seeks only his own pleasure."

Schutz' note brings out still more prominently the absurdity of Casaubon's guess. We shall allow him to lift Carneades' curtain in Latin. "Carneadēs *nimirum* uxori congressurus dixisse ferebatur *τύχη ἀγαθῇ παιδοποιῶμεν*, vel *aliud forte obscenius vocabulum posuisse*, quod hic a Cicerone reticetur. Vocabulum *spurce* igitur ad illud ipsum verbum obscenum, non ad *bene eveniat*, referendum."

Even were this libel on the domestic demeanour of Carneades allowed to pass current for truth, it imports but the smallest possible *modicum* of connexion into the passage. The real explanation is this:—*Spurce* does not imply any *obscenity*; here, as often elsewhere, it stops far short of any such signification; it only means "*a low view*" in philosophy, and the whole passage may thus be paraphrased:—

"I am glad to find you are so delighted with your little girl, and that you now approve the truth of the doctrine of Xenocrates and Aristotle, that affection for one's children is an instinct (*natura tributum*, an ultimate fact). If it be not so, there is no natural link between man and man, and society collapses. Carneadēs, indeed, puts parental affection on a low ground as compared with Xenocrates and Aristotle, when he *looks to the effect*, the good of society, the greatest happiness of the greatest number; but he is not so barefaced as the Epicureans, who refer all actions to self, apart from all considerations of others."

There are three different views referred to as to the source of parental affection:—

(1). That of Xenocrates and Aristotle, who make it an

instinct, *natura tributum esse ut ii qui procrearentur a procreatoribus amarentur*. (Fin. iv. 17.)

(2). That of Carneades, who traces it to an enlarged view of the interests of society, which require that such relationships should exist and be recognised; a *low view*, as compared with the first, according to Cicero.

(3). That of the Epicureans, who discount society altogether, and refer the feeling solely to the desire of personal gratification; a *shameless* view, in the opinion of Cicero.

I may add that the conjecture *prudenti*, could not bear Boot's sense of *acutius*, and that it would be difficult here to give it any other sense. It should not, therefore, be allowed to displace *prudenti* of the MS.

CAT. xxi. 12 :

Salve, O venusta Sirmio, atque hero gaude ;
Gaudete vosque Lydiae lacus undae ;
Ridete quidquid est domi cachinnorum.

Thus is this passage invariably punctuated, and the meaning is supposed to be that conveyed by the graceful couplet,

Rejoice, ye glancing waters of the lake,
And all ye smiles that dwell with home, awake !

But how can a laugh be asked to laugh? *Ridere cachinnum* is common, but who would say *cachinnus ridet*?

I would punctuate thus :—

Gaudete, vosque Lydiae lacus undae
Ridete quidquid est domi cachinnorum.

The imperative, *gaudete* and *ridete*, both refer to *undae*. *Gaudete vosque ridete* is a very common poetical order for *vos gaudete rideteque*, but *gaudete vosque* for *et vos gaudete* is not so easy to defend. The meaning is, “rejoice, ye waves of the lake, and smile all the smiles you have, to greet your master's return, make every wave a smile to welcome him.” Literally, it would be “smile all the smiles you

have about you, or are provided with ;" *domi habere* is "to be provided with, to have on the premises, to keep a stock of," as in Plaut. Mil. Glor. ii. 2, 38 :

domi habet animum falsiloquum
Domi dolos, domi delenifica facta, domi fallacias,

and in Cic. ad Att. x. 14, *quidquid habes ad consolandum collige et illa scribe, non ex doctrina neque ex libris; nam id quidem domi est.* In lxiv. 274, *cachinnus* is applied to the ripple of a wave :

leviter resonant plangore cachinni.

CAT. xli.

Ameana puella defututa
Tota millia me decem poposcit,
Ista turpiculo puella naso,
Decoctoris amica Formiani.
Propinqui, quibus est puella curae,
Amicos medicosque convocate.
Non est sana puella, nec rogare
Qualis sit solet aes imagosum.

The conjecture adopted by Mr. Ellis, in the last verse, is very seductive, but there is not a particle of evidence that the brazen mirror described by Pliny, and supposed to be here referred to as *aes imagosum*, was ever, or could be ever, called by any such name.

In the first 'verse we have the variant "*Amena agme*," and the last verse runs in the MSS.,

olet hac ^{et maginorum} ymaginosum.

Is it not more probable that the name was some such name as *Ammiana*, or *Ammiagna*, and that it occurs again in the last verse, which may have run,

Qualis sit solet *Ammiagna* nasum ;

that is, "the girl is out of her mind, and surely has never

asked any one what sort of nose she has, or else she (*ista turpiculo puella naso*) would never have made such a demand."

It is a common habit with Catullus to repeat in the last line the name of the person addressed in the beginning of his poem (*e.g.* in viii., xiii., xxxv., xxxvi.) The last letters of the line would then be *miagnanasum*, which would probably become *imagnosum*.

PLAUT. CAPT. II. 3, 32.

Qui me *honore* honestiorem semper fecit et facit.

This should be printed :

Qui me *Honore* honestiorem semper fecit et facit.

This is a common way of speaking in Plautus ; a mere quality or state is *personified*, so as to give an emphatic form of speech. Cf. As. ii. 2, 2,

Vt ego illos lubentiores faciam quam Lubentia 'st.

MIL. GLOR. III. 2, 43.

In the humorous passage where Lucrio describes his duties as *suppromus*, the verse

Vbi bacchabatur aula, casabant cadi,

is usually explained, "it was only when the pitcher commenced its revels that the wine vessel was made to totter. The *cadus* itself was not moved every time we drank; therefore,

Non hercle tam istic valide casabant cadi."

But the verse in question has more point, if it means, when the *aula* took to drink, it was the *cadus* that tottered, whereas usually the drinking and staggering are done by the same person.

MIL. GLOR. III. 3, 10.

Postquam adbibere aures meae tuae *moram* orationis.

Fleckeisen's *loream* seems to me as little Plautine as

moram. Perhaps we might read *morium*, a latinised form of μόριον, "a particle of your discourse." Compare above ii. 2, 60, *dulice, euscheme, comoedice*, also, *prothymias* (Stich. ii. 2, 11), and *eccheumatis* (Poen. iii. 3, 88), where Greek words receive a Latin inflexion.

Moram, independently of other objections, would involve an inadmissible *hiatus*.

MIL. GLOR. IV. 2, 5.

Numquis hic prope adest qui rem alienam potius *curat* quam suam

Qui aucupet me quid agam, qui de vesperi *vivit* suo?

I have corrected *curet* and *vivat* to the *indic*. Surely *curet* and *vivat* arose from an assimilation to *aucupet*; the meaning is, "is there any one who *is* a busybody and *is* an idler *to pry* upon me."

MIL. GLOR. IV. 2, 53.

Ecastor haud mirum si te habes carum

Hominem tam pulcrum et praeclara virtute et forma et factis.

Ecquis dignior fuit homo qui esset?

"Construe: Ecquis fuit homo qui dignior esset?" Weise.

By no means; but: "ecquis fuit homo dignior qui esset (carus)," "was there ever a man who had a better right to hold himself precious."

MIL. GLOR. IV. 7, 25.

Maris causa hercle istoc ego oculo utor minus,

Nam si apstinuissem *a mare*, eo tamquam hoc uterer.

It seems to me utterly erroneous to suppose that there is a play on *amare*, in the words *a mare*. The pronunciation of *ā märe* must have been quite unlike *āmäre*. This would be an *un-Latin* pun—a pun only for the eye, and that is one of the discoveries of modern times.

MOST. II. 1, 9.

Vbi sunt isti plagipatidae *ferritribaces* viri?

I suggest,

Vbi sunt isti plagipatidae, ferritribaces ubi viri?

For surely the antepenult is short in *ferritribaces*, as in *παιδορῖβης*, &c., as well as *typanotribam* (Truc. ii. 7, 60) and *flagritriba* (Pseud. i, 2, 5) where the verse is troch. tetram. cat.

PSEUD. I. 2, 60.

Vt civitas nomen mihi commutet, meque ut praedicent
Lenone ex Ballione regem *Iasonem*.

Weise cautions us that we are to understand the tyrant of Pherae to be referred to, not the Argonaut. But both are equally out of place. Perhaps Plautus wrote *Iasium*. Iasius, or Iasion, was the beloved of *Ceres*, and, therefore, appropriate here, for the preceding verses are

Principio, Hedylium, tecum ago quae amica es *frumentariis*,
Fac sis . . . adeo ut *frumento* adfluam
Vt civitas nomen mihi commutet, &c.

The girl, whose lovers are in the corn trade, is directed to produce so much corn from her lovers, that people will no longer call him Ballio, but Iasius, the favourite of *Ceres*. The quantities of *Iasium* being—υυ—, we must suppose a hiatus. There is also a synizesis in the last two syllables, unless Plautus shortened the first syllable of *Iasium*, which he very probably did. Hiatus is very frequent in this foot, *e.g.* (Rud. ii. 6, 49),

Vtinam fortuna nunc anatina uterer,
and the hiatus after *m* is very often found, *e.g.* (Stich. ii. 1, 55),

Ipse egomet quamobrem auctionem praedicem.

The metrical licentiousness of the verse would account for its corruption.

TRUC. III. 2, 15.

S. Dicax sum factus ; iam sum *caullator* probus.

A. Quid id est, amabo ? Istaecce ridicularia,
Cavillationes vis fortasse dicere.

S. Ita ut pauxillum differant a caululis.

Stratilax immediately afterwards says *rhabonem*, and when asked why he does not say *arrhabonem*, replies,

Ar facio lucri,

Vt Praenestinis conia est ciconia.

Hence Bothe, for *caullator* reads *villator* ; rightly, I think, if the whole passage be considered. For why should Astaphium object to his pronouncing *cavillator* as *caullator*, since she herself, in the next line, pronounces *cavillationes* like *caullationes*. The point of the passage is this :—Stratilax speaks in the Praenestine fashion, which Plautus often ridicules (*e.g.* Trin. iii. 1, 8) ; one of the peculiarities of this dialect seems, from the present passage, to have been the dropping of the first syllable : accordingly, he says *villator* for *cavillator*, as afterwards he says *rhabonem* for *arrhabonem*, and *conia* for *ciconia*. Astaphium corrects him, and suggests that he possibly means to refer to *cavillationes*, which, as the metre shows, she must have pronounced *caullationes* ; whereupon Stratilax retorts, your pronunciation of *cavillationes* is also wrong, for you pronounce it like *caululis*.

The word *habitūris* (Truc. i. 2, 47) is marked long in Smith's Latin Dictionary ; it is, of course, short, like every verb in *-urio*. It is hard, too, to see why *ferricrepinas* and *fustitudinas* should be marked with a short penult in the same dictionary. The words occur only in the line As. i. 1, 21.

Apud fustitudinas ferricrepinas insulas,

Vbi vivos homines mortui incursant boves,

where the metre allows a long penult, and all analogy is in favour of the same ; for names of places in *-inus* are always

long in Latin, *e.g.*, Hirpini, Caudini, Lucrinus, and the joke here consists in speaking of the *ergastula*, or farms where slaves underwent penal servitude, as strange "isles of Clubland and Rattlechain, where dead bulls (*i.e.* bull-hide whips) assail living men."

PROPERTIUS, I. 8, 7.

Tu pedibus teneris positas *fulcire* pruinas.

Fulcire may, I think, be allowed to retain its place in this passage, supported as it is by so strong MS. authority, if we take Propertius to mean that Cynthia would be forced to *walk ankle deep* in snow; to have to walk on snow (*calcare pruinas*) would not be so great a hardship, as to have to walk in snow so deep that she would have a superincumbent weight of snow on her feet. The expression, it must be allowed, is strange, and perhaps Persius is ridiculing it in the verse (I. 78),

Antiopa ærumnis cor luctificabile *fulla*.

I. 15, 29.

Alla prius vasto labentur flumina ponto.

I cannot help thinking that *nulla* must be the right word here to replace *nulla* of the MSS. It is true that, in Latin poetry, we are almost irresistibly led to expect something about rivers flowing back to their sources, as one of the commonplace types of the impossible, but if so, Propertius, in saying "sooner shall the deep rivers flow back *from* the sea," has used a phrase which would *more naturally* mean, "sooner shall the deep rivers flow *into* the sea." Besides, "sooner shall no rivers flow to the sea" cannot be denied to be an expression against which the only objection is, that we should have expected another.

I. 16, 7.

Et mihi non desunt turpes pendere corollae
Semper, et *exclusis* signa iacere faces.

Surely there is nothing gained by changing *exclusis*, which has MS. authority, to *exclusi*, which has not. The lovers who were admitted tossed away their torches, which, lying extinguished before the door, were a sign *to those lovers who, coming afterwards, were excluded*, that their more fortunate rivals were within. How the torches lying about before the doors could be *exclusi signa* it is difficult to see.

I. 18, 9.

Quid tantum merui? quae te mihi *carmina* mutant?

Carmina of the MSS. has here been almost unanimously expunged by the editors, for *crimina*. But *carmina* here means "magic incantations." It is one of the common-places of Latin poetry, that "despised love" should complain of the use of magic arts by the rival: *e. g.*, in iv. 6, 25,

Non me moribus illa *sed herbis* improba vicit,
and in v. 7, 72,

Si te non totum Doridos *herba* tenet.

I. 20, 14.

Ne tibi sit—durum—montes et frigida saxa,
Galle, *neque expertos* semper adire lacus
Quae miser, &c.

It is amazing that Mr. Paley follows Hertzberg in reading *experto* for *expertos*, and making *experto* govern the antecedent to *quae* in the next verse. *Neque expertos* is, of course, as Lachmann says, the same as *et in expertos*; to this there is an exact parallel in iii. 20, 52,

Vobiscum Europe *nec proba* Pasiphaë,
where *nec proba* is the same as *et improba*.

II. 1, 32.

Aut canerem Cyprum et Nilum cum tractus in urbem
Septem captivis *debilis* ibat aquis.

Debilis means "robbed of," as in *ordine debilis uno*, referring to a ship *maimed* of one of its banks of oars, Virg. Aen. v. 271. The Nile is said to be robbed of his captive streams when he graces the triumph which celebrated the reduction of Egypt to a Roman province.

II. 3, 45.

His saltem *ut* teneat iam finibus ; *aut* mihi si quis
Acrius ut moriar venerit alter amor.

Mr. Paley says, even in his 2nd ed. : "I have some confidence in restoring *at mihi si quis*, which, like the Greek ἀλλ' εἰ, 'but what if,' furnishes the exact sense required. Compare Ov. Fast. II. 399,

At si quis vestrae deus esset originis auctor,
if some fastidious critic should require an example of the concurrence of these words."

Few critics will be so fastidious as to require authority for *at si quis*, in the sense of "but if any," the sense it bears in the passage quoted by Mr. Paley from Ovid : but is it too fastidious to ask for some evidence, however slight, that *at si quis* could possibly mean "but *what* if any," and this is the sense required by Mr. Paley's conjecture?

The really objectionable word is *ut* = *utinam*. For it read *aut*, and the passage will mean, "may I keep my passion within the limits I have hitherto observed, (*aut iam*) whether this be my last *amour*, (*aut si quis*, &c.) or some other is destined to come to complete my ruin."

II. 8, 23.

Et sua cum *miseræ* permiscuit ossa *puellæ*.

The proper reading here is

Et sua cum *miserâ* permiscuit ossa *puella*,

as Mr. Paley might have learned from the passage to which he refers us, II. 3, 21,

Et sua quum antiquae committit scripta Corinnae,
where, as Mr. Paley himself remarks, "Hertzberg rightly observes that Corinnae is the dative, being put for *scriptis Corinnae* by a well-known idiom." Just so, in ii. 8, 23, *puella* is the *abl.*, being put for *ossibus puellae*.

The idiom is familiar in the phrase, *κόμαι χαρίεσσιν ὁμοῖαι*.

III. 9. 29.

De me, mi certe poteris formosa videri
Mi formosa satis, si modo saepe venis.

De me cannot be defended in the sense of *quod ad me attinet*. Is it not very probable that Propertius wrote—

Demens ! mi certe poteris formosa videri.

III. 20. 53.

Et quot *Troia* tulit, vetus et quot Achaïa formas,
Et Phoebi et Priami diruta regna senis.

Troia of the MSS. has been generally altered by editors to obviate the repetition contained in the next verse. But I think it has not been observed that there is a precisely similar iteration in iv. 1, 31,

Exiguo sermone fores nunc Ilion, et tu,
Troia, bis Oetaei numine capta dei.

Perhaps in iii. 20, 55, for

Et Phoebi et Priami diruta regna senis,
we should read (guided by this passage),

Oetaeo et Priami diruta regna senis.

IV. 6. 11.

Nec speculum strato vidisti, Lygdame, lecto?

Propertius, questioning the slave Lygdamus as to the bearing of Cynthia under her estrangement from him, asks

he slave whether he has observed in her any of those instances of neglect of her toilet, which would betoken regret for their disagreement, and an absence of any other lover. "Is her hair neglected," he asks, "and are her rings thrown aside, does her dressing-case lie neglected on the floor?" The verse at present under consideration has never been properly explained. *Nec strato* must be the same as *et non strato*, just as *neque expertos* (I. 20, 14) is *et inexpertos*, and *nec proba* (IV. 10, 52) is *improba*. We have then a sense quite in harmony with the whole passage—"Have you seen the mirror tossed carelessly on the neglected bed?" So he asks whether he has seen other things out of their proper place,

Scriniaque ad lecti clausa iacere pedes.

Compare also for the construction, III. 18, 53,

Crede mihi, nobis mitescet Scylla, nec unquam
Alternante vorans vasta Charybdis aqua,

where *nec unquam vorans* is the same as *et quae nunquam vorabit*; and IV. 25, 10, where *Nec tamen irata ianua fracta manu* must be explained as if Propertius had written *Et ianua nondum fracta*.

IV. 11, 21.

Persarum statuit Babylona Semiramis urbem,
Ut solidum cocto tolleret aggere opus,
Et duo in adversum *missi* per maenia currus
Ne possent tacto stringere ab axe latus.

Ne possent for *ita ut non possent* is incorrect. In the two last lines for *missi* read *mitti*, and for *ne* read *nec*. The construction will then be:—"Et (ut) duo currus (possent) mitti in adversum per maenia, nec possent stringere, &c."

IV. 20, 24.

Contineant nobis omnia prima fidem.

Contineant is a very unsuitable word. Is it not probable that Propertius wrote *continuent*?

V. 1. 81.

Nunc pretium fecere deos (et fallitur auro
Iuppiter) obliquae signa iterata rotæ.

Signa is the accusative governed like *deos* by *fecere*. But why should we endure such an intolerable *asyndeton*, when it is so easy to read—

Nunc pretium fecere deos et (fallitur auro
Iuppiter) obliquae signa iterata rotæ.

V. 6, 45.

Et nimium remis audent—proh turpe—Latinis
Principe te fluctus regia vela pati.

Thus punctuated, a good meaning is obtained:—"Too audacious are the waves in bearing Cleopatra's fleet with you as Emperor, and while there are still Latin oars."

Fluctus nimium audent pati = *fluctus nimium audent (ausi) pati* is very Propertian (cf., for instance, IV. 19, 23), as also is the absolute use of the *ablative* in *remis Latinis*. With the latter compare the exactly parallel *ablative* in III. 26, 91,

Et modo formosa quam multa Lycoride Gallus,

where Mr. Paley justly says, "*formosa Lycoride* may be called a Propertian *ablative absolute*, *cum ei esset formosa Lycoris*." Cf. also IV. 22. 13:

Qua rudis (pinus) Argoa natat inter saxa columba,

where *Argoa columba* = *quum adesset Argoa columba*.

V. 11, 8.

Vbi portitor aera recepit
Obserat herbosos lurida porta rogos.

It seems to me that this expression is not so very harsh as it seems at first sight, if we compare v. 7. 2:—

Letum non omnia finit,
Luridaque evictos effugit umbra rogos.

There the poet says the ghost *can* escape from the pyre, that *letum non omnia finit* ; here he says the opposite, the ghost *cannot* escape from the pyre, death is the end of all things, “ a dark gate closes up (is closed on) the flower-strewn pyre.”

ROBERT YELVERTON TYRRELL.

SCALIGER'S LIBER CUJACIANUS OF
PROPERTIUS, CATULLUS, &c.

IN the spring of last year, 1874, my friend Mr. Samuel Allen, knowing that I was studying Propertius critically, informed me that his father (the late Mr. Henry Ellis Allen), honourably known to scholars as Henricus Alanus, had a manuscript of that author in his possession, and was willing to lend it to me. Never having seen an original MS. of Propertius before, I was delighted at the privilege, and gladly embraced the offer—not indeed expecting to find the manuscript to be of any intrinsic value, but rather looking forward to enlarging through its means my acquaintance with the rudiments of palaeography.

I rather imagined that it would turn out to be one of the recent and entirely valueless copies, of which there is so large a mass dispersed through Europe. I was agreeably surprised, however; and to be brief, I will now state that I believe the MS. possesses a high intrinsic value, and a still more remarkable antiquarian value. For it is, in my judgment, none other than the liber Cujacianus, the manuscript used by Joseph Scaliger, the identical copy perused and collated by that illustrious critic. Before proceeding to show the reasons which lead to this conclusion, I have the pleasure of stating that it has been arrived at also by Professor Ellis, of the University of London, editor of Catullus, to whom, as an authority second to none, I bore the volume for inspection. Mr. Ellis received

the MS. with cordiality and interest; and I have obtained from him the result of a careful examination of the book, more careful than I have had time to devote it to myself, and I have obtained his permission to lay his conclusions before the readers of *Hermathena*. (*Infra*, p. 134.)

The book, which is one of small octavo size, contains the poems of Propertius, Tibullus, Catullus, and the Priapea. The Propertius begins with the title "Sexti Aurelii Propertii naute monobilos ad Cinthiam liber primus incipit feliciter."

The colophon at the end of the last book runs as follows:—"Sexti Aurelii Propertii naute monobilos ad Cinthiam foeliciter explicit per me Pacificum Maximum de Asculo in sapientia veteri Perusie anno 1467, 6 die februarii. Deo gratias et marie. K nō gaudeo K."

Scaliger states that he received the book at Valence from the famous jurist and book-worm Cujas. In a note on I. xx. 12, he says of the reading *Adriacis* in this MS., "nos olim Valentiaē Cavarum ubi scripti libri fecit nobis copiam iurisprudentiæ antistes Iac. Cujacius emendavimus, *Ah Dryasin*." And on the first line of the poems, where he quotes the title, he speaks of it in nearly the same words.

What became of the MS. after Scaliger had made use of it I am unable to say. It seems to have disappeared after this time, and the only mark it has left on the criticism of Propertius is to be found in Scaliger's notes.

Barth and Kuinoel refer to Scaliger's recension of it at second-hand. Lachmann only mentions it. Hertzberg's judgment is more discriminating, but he thought the MS. had perished.

It probably found its way back to the disordered library of Cujas, and at his death, in 1590, shared in the dispersion of his books and papers. The only account the book gives of itself in later times is an anonymous note in

a neat French hand at the end of the volume: "Ce manuscrit m'a été donné par l'Abbé Mathon en l'an 1808." The late Mr. Allen purchased it from a bookseller in London, about the year 1850.

So much for the history of the MS. It is clearly written in a good fifteenth century hand, the pentameters not indented. There are many marginal readings, some in the same hand as the text, others later. It has many glosses, some of which are curious. There are no lacunae of importance.

From a comparison of the readings of this manuscript with those given in Hertzberg's recension, I am disposed to think it is unique among Propertian codices. Although it has a family likeness to the Naples MS., it has many independent readings, which cannot be derived from that or any other existing copy. This opinion is much the same as that of Hertzberg, given below, p. 132. There is, of course, a vast amount of corruption, as in every existing MS. of this poet; but so far as I can judge, no wilful alteration, or very little, of the text the scribe had before him.

The first indication that I had that the MS. was identical with that of Scaliger was derived from a note of Mr. Paley's on III. xx. 53,

Et quot Troia tulit vetus et quot Achaia formas.

"Scaliger, however, finding in one copy *hioa* and in the margin *hiona*, conjectured *Iona*." Turning over the pages of the MS., I was startled by coming on *hiona* in the margin, and *hioa* in the text. Hoping for further revelations, and possessing Scaliger's notes, I took them up and went through them all, comparing the readings adduced by him from the liber Cujacianus, with those in Mr. Allen's MS. The evidence thus gained seems to me to prove decisively that the two manuscripts are really one and the same.

There are, it is true, a few discrepancies. Those in Propertius are very trifling, and these are to be accounted for by remembering that the collation of codices in the strictly accurate manner of modern scholarship was unknown in Scaliger's days.

Before proceeding to give a list of coincidences which justify the conclusion deduced, that Mr. Allen's MS. is the liber Cujacianus, and no other, and has therefore a high antiquarian value, I had rather devote a page or two to the proof of the proposition that it possesses an independent intrinsic value. This I will try to show from the consideration of three or four passages.

But it will be noticed that the first two passages supply equally convincing proof of the first proposition: Scaliger in both instances citing the reading of Mr. Allen's MS., which differs from all others that I know of in these passages.

The first is that very ungrammatical and absurd passage, as it is commonly read, III. iv. 53 seqq.—

Testis cui niveum quondam percussit Adonim,
Venantem Idalio vertice durus aper.
Illis formosum iacuisse paludibus, illuc
Diceris effusa tu Venus isse coma.

On v. 55 Mr. Paley writes, and he sums up fairly enough all that has been said by modern criticism on the line, "The construction is, 'Illis paludibus (dicitur eum) formosum iacuisse; illuc tu diceris isse,' etc. Kuinoel has *flevisse* for *iacuisse* from some of the early editions. Lachmann, from his own conjecture, *Illic formosis iacuisse*. The construction of the vulgate is so harsh that its correctness cannot be relied on. Müller's emendation, *vocitasse* for *iacuisse*, seems to have but small probability."

Now Mr. Allen's MS. has *lavisse* for *iacuisse*, and in my judgment it is certainly the right reading. It is, however,

given by no other MS. that I am aware of. It is a wonder that it has not been conjectured, and a still greater wonder that no modern editor has taken the trouble to read Scaliger's note on the line. He writes on the then received reading, *flevisse*: "Commentitia lectio. Nam liber noster, non *flevisse*, sed *lavisse*. Notus mos: 'corpusque lavant frigentis et unguunt,'" and he adds the strong confirmation of the line, II. ix. 11,

Et dominum *lavit* maerens captiva cruentum.

The reading *lavisse* gets over the difficulty of the syntax, and explains why *paludibus* is used. Venus washed her dead lover in the waters of the meadow.

The next passage that I will adduce is III. v. 15-16.

Propertius has been saying that he has at last discovered the method to subdue his beloved one, namely, by pretended scorn. He laments that he has found it too late.

Atque utinam non tam sero mihi nota fuisset
Conditio! cineri nunc medicina datur.

This seems all very well. We turn, however, to Scaliger, and we find, instead of *cineri*, the strange reading *emeriti* cited from the liber Cujacianus. And we take up Mr. Allen's MS. and we find there the strange reading, *emariti* for *cineri*. What is the meaning of this?

The meaning of it, according to Scaliger, is this. *Cineri* is an interpolation: a "commentum Beroaldi" he calls it, and wishes to read *emeritis*. He says of this: "Pulchrum proverbium: emeritus miles quæ medicina opus habet, quum omni vulneris periculo careat, utpote functus militia?"

I differ respectfully from Scaliger here, and have a theory of my own to offer. The emphatic and beautiful *cineri*, which is no invention of Beroaldus, but the reading

of every MS. except one, our own, must on no account be rejected. But our allegiance to this one MS. is not to be shaken by this fact, but rather strengthened, if the theory which I venture to propose be accepted. To be brief, I think the lines originally ran thus :

“Atque utinam non tam sero mihi nota fuisset !
Emerito cineri nunc medicina datur.”

The nominative to *nota fuisset* is, of course, *Cynthia* understood. With *emerito cineri* compare V. xi. 72,

Laudat ubi emeritum libera fama rogum.

The two passages explain each other. *Emeritus cinis* means, as *emeritus rogus* does in the latter passage, the spent ashes of the pyre. *Conditio*, “buried,” may have been a gloss on the strange word *emerito*, and it, I believe, got corrupted into *conditio*. (I now observe, for the first time, that the Naples MS. has got *condito*.) The absolute use of *conditio* in the ordinary reading is all but a solecism. Thus our MS. has an independent value, in supplying here, in a remarkable way, the deficiencies of other copies. This passage may be regarded as a strong proof of the honesty of the MS.; for why, against all sense, would a copyist have retained *emeriti*, except for the reason that it or something like it was then before his eyes in the archetype ?

The third passage which I will now adduce, where this MS. has an independent value, is III. xxv. 12,

Mansisti stabulis abdita pasta tuis.

Here it preserves *abbita* for *abdita*, and hence I was led to conjecture *arbuta*, having previously changed *mansisti* to *mandisti*.¹

¹ *Hermathena*, Vol. i. p. 161. *Journal of Philology*, Vol. vi. No. 11, p. 80.

V. i. 73, 74.

Aversis Charisin cantas : aversus Apollo :
 Poscis ab invita verba pigenda lyra.

'Aversis Charisin cantas' is a conjecture of N. Heinsius; and we may well join in Barth's devout wish that Propertius had written these words, for they cannot easily be improved upon. But the manuscripts for the most part give '*Accersis lacrimis cantas*,' or something like it. The name of the Graces is, however, preserved in our MS., and in but one other, the Commelianus, mentioned by Barth, but in none of the well-known copies of which a recension is given by Hertzberg. The reading of our MS. is :—

Accersis lacrimis carites : aversus Apollo.

On which Scaliger writes—'Noster (liber) *Arcessis lacrimis Charites* : quod ego mutare non ausim. Proverbium esse videtur, ut contra moestis dicebant *θύε τὰς χάριων*.' 'To make the Graces weep' would be a happy proverb indeed, if that be the translation Scaliger gave to the verse; but the form in which it is here expressed is not above suspicion, and there is a metrical difficulty, for we can hardly suppose Propertius would have Latinised the Greek *χάρις* so far as to write it with long *es*. If any one be loath to leave the line Graceless, I would suggest something of this sort, though without much confidence :—

Aversae charites chartis : aversus Apollo.

The similarity of the words *charites* and *chartis* would naturally cause the omission of one of them; but I am not anxious to defend this emendation, for it is obvious that it has three faults :—first, it does not account for '*lacrimis*;' secondly, the Graces are not often introduced in Latin poetry as ruling the domain of song; thirdly, no part of 'aversus' could have been the first word of the line, for all

the copyists would not have gone wrong in it, when they had 'aversus,' which they all write correctly, coming just after to guide them. Taking, therefore, Scaliger's MS. as our guide, we may get very well out of it the following, with trivial change :—

Accensis lacrimas chartis : aversus Apollo :

'you'll throw your unfinished poems into the fire, and weep over them.' The present 'lacrimas' well describes the certainty of the consequence, and suits the oracular deliverances of the astrologer. 'Chartis' may have been altered to 'charites' owing to 'Apollo' following. A different reading has been proposed in the Journal of Philology by Mr. Munro, to which I cannot assent.

v. vii. 5.

Cum mihi somnus ab exequiis penderet amoris.

No variant for *amoris*, save *amores* from the Naples MS., is mentioned by Hertzberg. But our MS. has got *amaris*, which has been suggested ; but the true reading is *amarus*. 'When my sleep was broken and restless after the funeral.' So 'noctes vigilantur *amarae*.' Ov. Her. xii. 169.

v. viii. 10.

Cum temere anguino creditur ore manus.

Mr. Paley suggests *tenera* for *temere*, and the MS. confirms his suggestion, for it, and it alone, has *tenera*, which is the right reading, in my opinion.

v. ix. 3, *seqq.*

Amphitrioniades qua tempestate iuencos
Egerat a stabulis, O Erythea, tuis,
Venit *in aduictos* pecorosa Palatia montes,
Et statuit fessos fessus et ipse boves.

I have given the reading of the third line of Scaliger's MS., and it probably is nearer the true reading than any other. For the word is, I think, some word like *inadsuetos* or *inadscensos*. A preposition is not wanted, and is indeed out of place, *Palatia* being the accusative directly after *venit*, and *montes* being in apposition with it.

The independent reading given by the MS. in these passages suffices to stamp it with a high degree of merit among existing codices. For aught I know, its value may be second to none. Lachmann evidently had never seen it when pronouncing the edict which has raised the Groningen and the Naples MSS. to their pre-eminence among Propertian codices in the opinion of critics. Hertzberg, as already stated, is more judicial, and is deserving of great praise for his discrimination, when he writes:—
'Ceterum vel Cuiacianum codicem quamvis a docto homine interpolatum, tamen, *quoniam cum servatorum nullo identidem conspirat neque ad ullam familiam redigi potest, interdum praebere quae haud temere spernas*, consentaneum est.'

I will now proceed with the line of proof adopted by Prof. Ellis in the case of Catullus and Tibullus, selecting some of the more remarkable coincidences in the first and fifth books.

Book 1.

iii. 18 *Expertae metuens iurgia saevitiae*.

Scal. 'noster codex *verbera*.' So Mr. Allen's MS. [*verbera* not given by Hertzberg.]

iii. 36 *Expulit e foribus*. Scal. 'Liber noster *restitu- lit*, and so Mr. Allen's MS. [not in Hertz.]

v. 8 *Molliter irasci non solet illa tibi*.

Scaliger cites *sciet* from his liber, and so the MS.

viii. 27. *hic iurata mea est* for *hic iurata manet*.

x. 17. *poenas* for *curas*.

20. *quaeque querenda* for *quaeque cavenda*.

On xv. 1 Scaliger writes on the reading *levitatis iura* :

'in ora nostri libri adpositum erat *levitatis dura*.' *Dura* is in the margin of the MS. This is strong enough.

But the next passage is stronger still.

xvi. 24 On 'me dolet aura' Scal. writes 'in margine codicis *dolat* quod retinendum.' *Dolat*, which is a very curious reading, and if it be 'retinendum,' sadly wants illustration, is in the margin of the MS.

38. *iratus* for *irato*.

xviii. 23. *curam* for *curas*.

xx. 8. *amerina* for *Aniena*.

xx. 52. credere *tutus* Hylan, for credere *visus* Hylan.

Mr. Paley here says that Scaliger reads *tutus* "from one inferior MS." How does Mr. Paley know that it is inferior? He probably follows the opinion of Lachmann, whose *ipse dixit* on Propertian questions, at least, is not, in my opinion, at all worthy of the deference which is generally accorded to it. He certainly never saw the MS., and probably was unaware of its being still extant, and Scaliger, who ought to know most about it, speaks of it with the greatest respect.

Book v.

iii. 8. *beticus* hostis for *Neuricus* hostis.

v. 21. *dorizantum* (not *dorozantum*).

74. *culta* for *clatra*.

vii. 64. Narrant historiae *corpora* nota suae.

corpora for *pectora* : possibly the true reading.

viii. 2. *arva* for *turba*.

84. *suffocat* for *suffiit*.

x. 10. Roma, tuis quondam finibus *Hector* erat.

hector for *horror*. Scaliger says of the reading

Hector, 'valde placet.'

40. *Belligera* for *Belgica* in the line—

Belgica cum vasti parma relata ducis.

ibid. *relicta* for *relata*.

All the above readings are cited by Scaliger from the liber Cujacianus. All of them are in Mr. Allen's MS. None of them are in the copies collated by Hertzberg. I think the induction is sufficient, without pursuing the proof through the remaining books. I hope at some future time to publish a collation of the MS. throughout.

September, 1875.

ARTHUR PALMER.

MR. PALMER has stated his belief that the MS. of Catullus, Tibullus, Propertius, and the Priapea, at present in the possession of Mr. Allen, is identical with the Cujacianus which Scaliger used in his edition of the three poets, and he has asked me to state my own opinion. On Propertius I shall leave Mr. Palmer to speak for himself; in Catullus and Tibullus I have collated all the readings mentioned by Scaliger, and have arrived at a decided conclusion—that this MS., and no other, is the very MS. which Scaliger borrowed from Cujas, and continually quotes in his edition.

Scaliger speaks of his MS. several times. Thus at the beginning of his commentary on Catullus he says: *In manuscripto eruditissimi viri Iacobi Cuiacii non Caius sed Quintus praenomen exaratum est. . . Porro liber ille quo usi sumus cuiusque iam mentionem fecimus longe alios huius poetæ manuscriptos bonitate superare mihi videtur.* Again, on xxix. 8, *Ego quum Valentiae Cavarum hunc locum scriptæ lectionis perpenderem, succurrit posse legi Aut (ut?) Albulus columbus, aut Adoneus. . . Itaque nondum me eius coniecturae poenitet.* Again on Prop. I., 20, 12. *Nos olim Valentiae Cavarum ubi scripti libri fecit nobis copiam Iurisprudentiæ antistes Iac. Cuiacius, emendavimus a Dryasin.* Again, at the beginning of the commentary on Propertius he says, *In uno manuscripto, cuius copiam nobis fecit clarissimus Iac. Cuiacius, Titulus idem conceptus est, item et in antiquis editionibus, hoc uno excepto, quod Nautæ al-*

terum cognomen illi attribuunt. Ita enim scribitur : Sex. Aureli Properti Nautae monobiblos ad Cynthiam. At the beginning of the commentary on Tibullus: *Hujus poetae ea omnia quotquot in Italia extant, exemplaria, recentiora sunt quam ut inter vetustos libros censeri debeant, quin correctorum audacia multa perabsurda illis admista sunt. Eiusmodi unum vidimus, cuius copiam nobis fecit Iuris consultissimus Iacobus Cuiacius. Sed et meliora quaedam in eo quam alii in suis, invenimus. Neque puto meliorem librum eo hodie extare: nam quaedam etiam vetustatis retinet vestigia, quum paullo ante ineuntem typographicam artem scriptus sit: et nondum correctorum audacia ita licenter in bonis auctoribus pervagaretur.* On Tib. I., 4, 8, he says, *hic versiculus liquido extat in nostro infimae vetustatis, quo tamen vetustiore non habent Itali critici, quod ex illorum editionibus certo affirmare possum.*

From these notices it appears that Cujas lent Scaliger a MS. of Propertius at Valence, and that he read both Propertius and Catullus, doubtless in the same MS., there, some considerable time before the publication of his edition. Whether Tibullus was included in the same MS. is not, so far as I know, stated; but nothing is said which makes it impossible, and it is expressly asserted in the Scaligerana Prima, s. v., *lingua*—a passage which I shall examine more fully later. The MS. was in Scaliger's opinion a very good one, by which he probably means that as compared with many MSS. of the same poets, it was uninterpolated, and generally represented the archetypal tradition pretty faithfully. If the Catullus and Propertius were included in the same volume as Tibullus, it was a very late MS., written just before the commencement of the era of printing. The superscription prefixed to the poems of Catullus gave him the praenomen Quintus; the first book of Propertius was entitled *Sex. Aureli Properti Nautae monobiblos ad Cynthiam.*

Mr. Allen's codex begins with these words, *Sexti Aurelii Propertii nautae monobilos Ad Cinthiam Liber primus incipit feliciter*. At the end of Propertius is *Sexti Aurelii propertii nautae monobilos ad Cinthiam foeliciter explicit per me pacificum Maximum de Asculo in sapientia veteri Perusiae. Anno 1467, 6 die Februarii. Deo gratias et mariae. K nō gaudeo K.*" The rest of this page is left blank; on the top of the next is *Vita et forma tibulli*, followed by a short life of Tibullus, with the four lines called in the MS. *Epitaphium tibulli. Te quoque Virgilio—regia bella pede*, then, without introductory title, *Divitias alius*, &c. After the last line of Tibullus, IV. 14, 4, *Finis tibulli per me pacificum Maximum Irineum Asculanum.*

Laus deo et immaculatae Virgini Mariae.

Orara Prome. K. B.

The rest of this page is left blank. On the top of the next is *Q. Valerii Catulli poetae Veronensis ad Cornelium Nepotem liber incipit Feliciter*. Then the epigram:

Ad patriam redeo longis a finibus exul

Causa mei reditus compatriota fuit.

Scilicet a calamis tribuit cui franciā nomen

Quique notat cursum praetereuntis iter.

Quo licet ingenio vestrum revocate Catullum

Quoius sub modio clausa papyrus erat.*

exactly as given by Scaliger, which is noticeable, as *redeo* in v. 1, *cursum* in v. 4, *revocate* in v. 5, differ from the ordinary version of the epigram. Then *Ad Cornelium Nepotem*, followed by *Quoi dono l. n. libellum*. The poems of Catullus are slightly disarranged. After XXIV. 10, *Nec servum tamen ille habet neque arcam* follows XLIV. 21, *Qui tunc vocat me cum malum librum legit*, then XLV.-LXII. 66, then XXV. 1 to the end of XLIV. including the last line, which is repeated, with the variation *nunc* for *tunc*. Then *de Athine furore percito* and LXIII. onwards. This same

* Scaliger has *papyrus*.

disarrangement is found, with two slight variations, in four of the MSS. of Catullus collated in my large edition (see Prolegomena, p. xxxviii.) After the last poem of Catullus follows the epigram :

Effugit mi animus, credo ut solet ad Theotimum.

Then *Finis*.

Finit Catullus. Laus trinitati unitae. Pac. M. A.

Then on the same page :

*Publii virgilii Maronis Carmia Priapi
incipiunt Feliciter sunt qui Ovidii putant
esse opusculum.*

After Priap. LXXX. 10, *Huc ades et nervis tente Priape* fove is written *Priapeia Finis quis fecit non video. Per me Pacificum M.—m (?) As. Irinaeum.*

Laus virgini Mariae.

Then with the superscription, *De lentitudine Priapi*, the poem ascribed to Tibullus, *Quid hoc novi est quid ira nuntiat deum.* Then *Finis. Laus deo et mariae immaculatae per me pacificum.*

The MS. was thus written at Perugia in the year 1467, a date which agrees with Scaliger's description of his Tibullus MS. as 'paulo ante ineuntem typographicam artem scriptus,' as well as with the words 'liber infimæ vetustatis,' by which he often describes this MS., doubtless to distinguish it from the much older and more valuable fragment, beginning Tib. iii. 4, as well as the excerpts from another Tibullus MS. in his possession. I must here mention a passage in the Scaligerana Prima which is to some extent at variance with the above description. It is under the word *Lingua. Nullus est in veterum librorum collatione Josepho Scaligero expeditior ac promptior, ut in codice Catulli, Tibulli, Propertii manuscripto illique a Domino Cuiacio misso observavi, quem intra duos aut tres ad summum dies cum suis contulit. Hoc autem exemplar descriptum erat anno Domini 1469, Nemausique a Dom. Cuiacio inventum est ? Bernays'*

Scaliger, p. 142, § 22. This discrepancy of two years I am not inclined to make much of: the statement of the Scaligerana is not worth more than other statements in such collections: it must not be pressed too minutely. We may feel confident that Cujas's MS. contained the three poets; we cannot infer that the Priapea were not part of the same MS. because nothing is said of them in the Scaligerana. Cujas may have found the MS. at Nismes; that he *sent* it to Scaliger, or that Scaliger collated it in three days at the utmost, are assertions which may be true, but require more evidence than the bare assertion of the writer. If it is said that the particularity of the date looks like accuracy, I shall answer by an *a fortiori* case, in which great particularity, combined with great accuracy on the whole, did not prevent mistakes. In Wheler's *Journey into Greece*, Book 1, p. 23, ed. 1682, is a description of the famous Trau fragment of Petronius, as inspected by Wheler there. Any one who wishes to estimate modern and ancient exactness can hardly do better than compare this description with that given by Bücheler in his edition of Petronius. I shall confine myself to one part of it, the date, which as copied by Wheler appears thus:—

1423. 20. Nobr.

Chapt. 6. Vers. 200.

As given by Bücheler, *Prolegomena*, p. XVI., thus:—

1423 di 20 nobr. p cy.

ep̄te 6. . uersus 228.

If an allowedly careful man like Wheler could make in the compass of two lines as many variations from the actual MS. as are exhibited here, it is more than probable that less careful men would be less accurate. I therefore accept the statement of the Scaligerana as correct in the main outline, without thinking myself bound by its details.

It is, of course, on internal evidence after all that a question of this kind must depend. And here the case for the

identification of Mr. Allen's MS. with Scaliger's Cujacianus is very strong indeed. I have examined all the readings cited by Scaliger from his MS., with Mr. Allen's codex, not only in Catullus, but in Tibullus; and I can confidently declare my belief that the agreement is so close in both these authors as to make anything short of identification an impossibility. I am well aware that MSS. copied directly from the same original often agree minutely with each other; this is emphatically true of Catullus, as my apparatus criticus will show; *e. g.*, the three MSS. A C L, and the three B La¹ V, form two separate families, each member of which agrees generally with the other two, and differs from the members of the other group. It might be thought that the Cujacianus was copied from the same MS. from which our MS. was copied; and that this is the cause of its generally minute agreement, as well as of its occasional discrepancies. This theory would have greater plausibility if the MS. contained Catullus or Tibullus alone; it comes with much less force when it is remembered that the agreements, in some cases of a very rare, and, in Catullus at least, so far as my knowledge of the MSS. extends, unique kind, extend not to one author but to three. I shall begin by mentioning the most remarkable of these agreements, in Catullus, and shall indicate when any of the MSS. collated in my edition exhibit the same reading. I follow the order of the poems.

xxv. 7 'Nos in nostro reperimus: *cyrographosque thynos.*' Scal. *Cyrographosque thinos* MS. This reading is not found in any of mine.

xiv. 15 'Vetus scriptura *uno ἀρχαϊκῶς.*' Scal. *Uno* MS., and so my Brit. Mus. *h.*

lxiii. 'In nostro scripto titulus legebatur: *de Attine furore percito.*' Scal. *De Athine furore percito* MS. DE ACHINE FVRORE PERCITO the Burney MS. in Brit. Mus., my *d.*

lxiii. 80 'Aliquantum variat scriptura in nostro: *Mes libera nimis qui.*' Scal., and so MS. This reading is not found in any of mine.

lxiv. 18 '*NUTRICUM tenuis*] Eleganter sane, sed mirum in nostro liquide scriptum, *Iam crurum tenuis.*' Scal. So MS., and I have found this reading nowhere else.

lxiv. 273 'in nostro libro extat scriptura. *Procedunt, leni resonant plangore cachinni.*' Scal., and so MS.; of my MSS. the Burney has this reading.

lxiv. 322 'CARMINE perfidiae] Ita docti viri emendaverunt ex antiqua scriptura illa, *carmine perflabat.*' Scal., and so MS., as well as my Brit. Mus. *b.*

lxvi. 59 'Noster liber habet *uario ne solum in limine celi Aut Ariadneis aurea temporibus Fixa corona ford.*' Scal., and so MS., except that *uarione* is written in one word. None of my MSS. has this strange *Aut.*

lxvii. 17 'Liber *Quid possit.*' Scal., and so MS. None of my MSS. has this reading.

lxviii. 20 'Vetus scriptura, *Abscidit.*' Scal., so MS. The reading is not found in any of my MSS., nor in any of the twenty-eight examined by Santen.

lxviii. 47 'Sane illum (uersum) liber noster non agnoscit. In nostro autem aliena manu non melior illo suppositus erat: *Muscosi repetat vada remigiis Acherontis*, ut appareat vulgatum hunc non admodum vetustum esse, sed profecto subolet mihi aut Marulli aut Pontani aut Garini esse.' Scal. This extraordinary verse accordingly appears in the MS., and is one of the most decided proofs—of which, however, there are several other evidences—that it is considerably interpolated, *i.e.*, if compared with the earliest and best, the Sangermanensis, my Oxford Canonici, the Datanus, or my Brit. Mus. *a.* I question whether the verse *Muscosi*, &c., exists in any other MS.; at any rate it is not mentioned as a reading by Santen in the edition of this

poem, which he published as a specimen of his contemplated edition of Catullus in 1788.

lxviii. 79 'In ora libri nostri altera lectio notatur *Deficeret.*' Scal., and so MS., except that it has in the text *desyderet*, not *desideret*.

lxxv. 1 '*HVC est mens deducta*] Liber noster, *Nunc est mens adducta*, et sane est ἀποσπασμάριον integri poematii. Cuius alterum membrum tetrasticho constat, cuius initium est *Nulla potest mulier se tantum dicere amatam.*' Scal., and so lxxv. 1 the MS. has *Nunc est mens adducta*, the *N* in illumination, as all the initial first letters of every poem which has a title are. *Nunc est mens abducta* is the reading of my Burney MS. *d*. Here, as is well known to students of Catullus, the question is one of considerable importance, Lachmann having made this supposed separation of the two halves of one eight-line poem the basis of his theory as to the original number of lines in a page of the archetype. The joint evidence of *d* and our MS. seems to show, that *Nunc e. m. adducta* or *abducta* was at least no interpolation. Neither MS. gives any sign of connecting lxxv. with the other four lines supposed to belong to it, lxxxvii. 1-4.

lxxvi. 11 '*Vetus scriptura iam dudum fuit: Quin tu animo affirmans atque instructoque reducis.*' Scal., and so MS., as well as my *d*.

lxxvii. 3 'In nostro duo antiqui characteris extabant vestigia, *MEI et PERVRES.*' Scal., and so MS. Several other MSS. have *mei*, but none that I know of, *perures*. The combination of the two in our MS. is, I think, very significant.

lxxix. 1 '*LESBIVS*] In nostro *Cælius.*' Scal. The MS. accordingly has *Cælius*, with *Lesbius* written as a variant in the margin. In v. 3 of the same poem the MS. has *natorum* 'quod vetus scriptura prae se ferebat,' says Scal.,

no doubt again quoting from his codex. *Caelius* is found also in my *d*.

I have mentioned only a few of the more remarkable agreements between the Cujacianus and our MS. But it can hardly fail to strike the least experienced student of classical texts, that this agreement is much more remarkable, if contrasted with the *occasional* agreement of the readings quoted by Scaliger with other MSS. exhibited in my edition. This is specially true of the Burney, my *d*; in the title of the Attis, in lxiv. 273, in lxxv. 1 *Nunc est mens adducta* (*abducta*), in lxxvi. 11., and in lxxix. 1, the Burney exhibits a close agreement with the readings of Scaliger's 'vetus' or 'noster liber.' But, then, it differs as decidedly in the rest of the readings which I have cited from Scaliger, and it cannot, therefore, be the MS. which he used. Similarly, the remarkable reading, *Huic uno domino*, xlv. 14, is also found in my *h*, the strange corruption *Carminē perflabat*, lxiv. 322, in my *b*; but these agreements with the Cujacian are quite exceptional, and only prove that a quite unusual reading, as well as a mere error of transcription, can find its way into MSS. by such a variety of channels, as to make it often impossible to say more than this: the reading or the error, which we now find in several MSS., must have come from one particular MS. *originally*. Thus *perflabat* is a mere error of transcription: Scaliger found it in his *Cujacianus*, I in my *b*; but the two MSS. are not particularly like each other, speaking generally, and cannot have been copied from the same MS.; what is more, are so different as to make it hard to see *how* so curious an error can be common to both. But between Scaliger's readings and our MS. we have a minute agreement, not in one, or two, or three very exceptional readings, but in a great number, many of them not ascertained to exist anywhere else; what is more, a close agreement in less exceptional passages, where other MSS., even of one family, either

disagree or agree with some slight variation. It seems a natural inference that Scaliger took his readings *from* our MS., and that in the comparatively few cases where there is a disagreement, it is to be ascribed, *not* to two copies of one MS. written within two years of each other, perhaps by the same scribe, and containing the same authors, but to the various accidents which make the accurate transmission of MS. readings an always difficult task—*e.g.*, the habit of noting them in printed copies, which sometimes causes part of a variant to be entered instead of the whole; or again, of using particular letters to denote such and such MSS., and confusing them either at the time or afterwards; or again, to mere errors in the printing, such as undoubtedly exist in Scaliger's edition of Catullus, Tibullus, and Propertius; or lastly, to the greater carelessness of the time.

At the risk of being thought tedious, I shall now mention all the readings cited by Scal. as found in his MS. or 'ex veteri scriptura,' or as 'vetus scriptura,' or 'prisca scriptura.' The reader will understand that they agree exactly with Mr. Allen's MS., when nothing is stated to the contrary. When a reading is marked with an asterisk, Scal. says he found it in his MS. 'noster liber.'

i. 8 *Quare habe tibi quicquid hoc libelli est*
Qualecumque.

ii. 7 *Et solatiolum sui doloris*

Credo ut quom gravis acquiescet error.—Scal.

This is stated by Scal. to be *vetus scriptorum librorum lectio*. And so it is with the exception of *error*, which I have never found in any MS., and which Scaliger's own explanation *homines tunc credunt se defunctos dolore quando eo leuantur* shows to be a mere printer's mistake. Mr. Allen's codex has—*Credo ut quom gravis acquiescet ardor*.

iv. 23 *A mare novissime.**

vi. 12 sqq. 'Prisca lectio *Nam mi ista praevallet nihil tacere*

Cur non tam latera e. panda

Nec tu quid facias ineptiarum.'—Scal.

Here the MS. does not quite agree; it has *in* for *mi*, and *pandam* for *panda*. Possibly Scal. was less careful than usual, as he has not written the word which followed *latera* at full length, or he may not be quoting our MS.

viii. 9 *Nunc iam illa non vult, tu quoque impote.* 'Scriptus liber,' Scal. So MS., except that it has *vult*.

15 *Scelesta, rere quae tibi manet vita.* 'Liber scriptus,' Scal. So MS. uniquely.

ix. 4 *Fratresque unanimes suamque matrem.**

x. 8 *Et quantum mihi profuisset ære.*

So MS., but *here* for *ære*.

x. 13 *Non facerent.* 'Scriptus liber,' Scal.

17 *beatiorē.*

27 *inquit puellae.* 'Antiqua lectio,' Scal.

xvi. 12 *Vos quot millia.* 'Vetus scriptura,' Scal.

19 *superata.**

xxiv. 4 sqq. *Mallem diuitias mihi dedisses*

Isti quorū neque seruus est neque arca

Quam sic te sineres ab illo amari.

7 *Qui non est.* 'Vetus,' Scal.

xxv. 2 *uel inula moricilla.*

11 *Insula.*

xxviii. 11 *fuistis.* 'Ex veteri libro,' Scal.

13 *Farti.*

The MS. has *Farti* with a *c* in darker ink superscribed.

xxix. 4 *Habebat cuncta et ultima Britannia.*

15 *ait.**

19 *Ibera qua se amnis aurifer Tagus.*

MS. *q̄ se.*

20 *Hunc Galliae timet tellus et Britanniae.**

xxxiv. 23 'Vetus scriptura: *Romulique Antiquæ*,' Scal.

The MS. has *Romulique Angue*, the *ti* by a later hand.

xxxvi. 19 *Pleni thuris*.*

xxxvii. 13 *bella parata*.*

xxxix. 17 'Scriptus liber, veteres editiones: *Nunc Celtiber ex Celtiberia in terra*.' Scal. If he meant his MS. by 'Scriptus liber,' it does not agree here with our MS., which has the ordinary reading, *Nunc Celtiber Celtiberia in terra*.

xli. 1 *A mean*. So MS., *A me an*.

xlili. 1 *Salve nec nimio*.*

xlvi. 7 *aliamque petere expulsus sum*

MS. *aliamque petere expulsus q sim*,

A discrepancy of some consequence, as Scal. infers from his MS. having *petere*, that it was an old and good one. But then no other MS. known to me, except Mr. Allen's, has *petere*, and I accept the agreement of Scal.'s reading on this, the most important particular, as of more weight than the disagreement in *sum* and *q sim*.

li. 11 *Tintinant aures*. The MS. has *tintinānt*.

liii. 5 '*DI magni salaputium*.'] Haec est omnium antiquitus excusorum lectio; item noster ita habet.' Scal. But the MS. has *salapantium*, a serious disagreement, which I do not know how to account for, unless, indeed, he made a confused entry in his notes; for *salapantium* is the reading of nearly all the MSS., as *salaputium* is of most editions.

liv. 5 *Suffitio*. The MS. has *Sufficio*.

lv. 2 *tabernæ*.

3 *Te campo quæsiuimus minore*.*

The MS. has *quaesiuius in minore*.

9 *vel te sic ipse flagitabam**

Camerium mihi pessimæ puellæ.

13 *Sed te iam ferre Herculei labos est*.*

14 *Tanto te in fastu negas amice*.*

22 *Dum nostri sis particeps amoris.*

MS. *pticeps*.

lix. 1 'Integrum totum hoc epigramma, si veterem lectionem in suas sedes restituas: plane enim exaratum est: *Bononiensem Rufa Rufulum fallat.*' Scal. Our MS. has *Bononiensis Ruffa Ruffum fallat*, the reading of all MSS.; not one of which—so far as I can speak from knowledge—has *Bononiensem* or *Rufulum*. It is not till Palladius' edition of 1500 that *Rufulum* appears at all. Here, therefore, I am obliged to confess myself at fault: is it possible that Scal. originally noted the word *fallat* alone as the MS. reading, and afterwards combined it unwittingly with a reading really conjectural? He can hardly mean that *fallat* alone is the indubitable reading of the MS., and consider himself justified in altering the rest of the line on the hypothesis of its meaning *fallit*, against the received interpretation by which it = *fellat*.

lix. 2 *uxor nemeni.*

5 *Ab semiraso.*

lxi. 68 *Stirpe vincier.*

79 *Tardet.*

99 *Proca.*

107 *omnibus.*

108 *lecti.**

112 *Gaudeat.*

115 *Flammicum video venire.*

151 *Quae tibi sine fine seruiet.*

The MS. has *seruit*.

169 *Illi non minus ac tibi**

Pectore uritur intimo

Flamma sed penite magis.

176 *Iam cubile adeant uiri.**

The MS. has *aderant*.

179 *vos bone senibus unis Cognite breue femine.*

vos. om MS.

189 *Ad maritum tamen iuvenem**

Cælites nihilominus Pulchre res.

195 'IAM Venus.] Lege *Iam venis*, veteres editiones et manuscriptus liber.' Scal.

The MS. has *Iam Venus*. Perhaps Scal. meant by 'manuscriptus liber' some other MS.

199 *Ille polueris erithei* (prisca scriptura, Scal.)

MS. *pulueris*.

203 *Multa millia ludere.**

MS. *milia*.

lxii. 7 *Nimirum hoc eos ostendit noctifer imber.*

So MS., but *hoc eos*.

9 'Vetus scriptura erat:—*Caudent quo uisere parent*.'

Scal.

Caudent quo uisere parent, MS., a variation not difficult to account for.

35 *Hesperie.*

37 *quem.**

lxiii. 4 *Stimulatus ubi furenti.**

5 *illectas.**

26 *celebrare.**

27 *noua mulier.**

33 *iuci.*

47 *usum.**

53 *Ut apud miser ferarum.** The MS. has *Ut caput* (*caput* the first hand) *misere et ferarum*, a remarkable variation.

78 *Agedum, inquit, age ferox, fac ut hunc furoribus.**

Fac ut hunc furoris ictu reditum in nemora ferat.

lxiv. 36 *Graiugenasque domos et moenia Larissea.**

So MS., except that it has *ac menia*.

49 *conchyli.* MS. *conchili*.

55 *Nec dum etiam seseque sui cui . . . credet.**

(So MS. exactly).

70 *prodebat.**

148 SCALIGER'S LIBER CUFACIANUS OF

75 *Gortynia templa.**

89 'Repone ex ueteri scriptura *myrtus*', and so

MS.

92 *cuncto concepit.*

102 *expeteret.** MS. *expeteret.*

109 *lateque et comminus.** MS. *cominus.*

110 *prosternit.**

119 *Quae misera ingrata . . . deperdita leta.**

120 'Liquidida scriptura in nostro *Omnibus aut dulci Thesei præoptauit amorem.* Quam qui mutauit quo flagro non dignus fuit?' Scal. A strange remark, if there is no mistake in the printing, for the verse is unintelligible; but that there is a mistake is evident from the list of errata at the end of the volume, where *Omnibus aut dulci* is corrected into *Omnibus aut dulcem*: and in Graevius' edition of 1680, which contains Scaliger's commentary, *aut* has become *his*. The MS. has *Omnibus his Thesei dulcem præoptauit amorem.* Are we to suppose that the 'liquidida scriptura' refers to *præoptauit* alone?

122 *tristi deuinctam.**

125 *clarificas.** MS. *clarificans.*

132 *auectam.*

139 *At non hæc quondam nobis promissa dedisti,
Voce mihi non hoc miseræ sperare iubebas.*

142 *Quæ contra aerii.**

176 'Noster *reliquisset,**' Scal. The MS. has *liquisset* with an erasure before the *l*.

178 *Isthmoneosne.* MS. *Istmoneos ne.*

229 'Ex veteri scriptura lege: *Quæ nostrum genus ac sedes defendere fretis Annuit.*' Scal. The MS. has *freti*; probably Scal. only means to follow the indication of the MS., against the reading of some editions *sueta*.

237 *reducem aetas.*

249 *Quae tamen adspectans.* So MS., but *aspectans*.

257 *raptabant.**

287 *Minosin.* MS. *Minosim.*

290 *letaque.*

300 *montibus idri.*

308 *Candida purpurea Tyrios extinxerat ora.*

MS. *exstinserat.*

334-336 *Nulla domus tales—Nullus amor—Qualis adest.* These three verses were not in Scaliger's codex, neither are they in the MS.

350 *Quum cinerem canos.*

353 *Nanque uelut densas præcernens cultor aristas.*

383 *omine.**

385 *Nereus ut.* MS. *Nereus et.*

404 *parentes.**

lxv. 3 'In ora nostri libri eadem manu notatum est: *Nec potis est harum dulcis.*' Scal. The margin of our MS. has accordingly *hārum dūlces.*

9 'ADLOQVAR.] 'Expunximus hunc versiculum. Siquis id queritur inuria factum, habet lacunam in nostro libro.' The MS. has a lacuna of one verse.

12 *tegā.**

14 *absumpti fata gemens Prothei.* So the MS., except that it has *assumpti.* The strange *Prothei* probably was the word which the scribe of the Burney (*d*) omitted.

16 *Excerpta.* MS. *excerta.*

lxvi. 11 *nouo auctus hymenæo.*

45 *Quum Medi properare nouum mare.*

48 *telitum.** MS. *te li tum*, originally, I think, *celitum.*

51 *Abruptæ.**

55 *umbras.**

63 *Viuidulum a fluctu.*

77 'Noster, QVOM VIRGO.' The MS. has *Quin quom ego qm virgo*, but the *n* of *Quin* is erased. Scaliger here reports inaccurately.

66 *Callisto iusta Lycaonia.* The MS. has *Calisto iusta Licaonia.*

79 'Ita ex nostro libro legendum.

*At vos optato quae iunxit lumine taeda**

Non post unanimis corpora coniugibus.' Scal.

So the MS., except that it has *Nunc* for *At*, and *optatos* for *optato*.

83 *petitis.**

91 'Vetus lectio *ueris* aut *uestris* praefert.' The MS. has *uris* (*uestris*).

92 *Adfice.** MS. has *affice*.

lxvii. 6 'Vetus lectio, *Porrecto*.' Scal.

P recto. MS.

8 *In dominum uenerem*, 'liber scriptus.' Scal.

12 *Verum isti populi ianua quite facit.**

13 *Qui* 'liber.' Scal.

v. 20 *attigerit.* The MS. has *attigerit*.

23 *illius* 'liber.' Scal.

27 *Et quaerendum.* 'Scriptus liber.' Scal.

Here, strangely enough, the MS. has *Et quaerendus* like all the others, including the Burney.

lxviii. 41 *quam salius in re.*

50 *In deserto Ali.*

51 *Amathusia*, 'scriptus liber.' Scal.

67 'Lege ex eodem libro, *Is laxum lato*.' Scal.

The MS. has *lassum*, a word often confused with *laxum* in MSS.; but it seems unsafe to attribute to Scaliger an *interpretation* of the actual reading, though an obvious one.

78 *Quam.** MS. has *Q*.

91 *Quae vetet nostro*: so MS., with *et* written above after *vetet*, in a later hand, apparently.

100 *Detinet extremo.* MS., *Detinet extremao*.

112 'Vetus lectio, *Audet*.' Scal. So MS.

118 *Qui diuum domitum.*

124 *Suscitat a cano volturium capite.*

So MS., except that it has *uoltarium*.

126 'Vetusscriptura: *quae multo dicitur improbius.**

128 'Repone ex eadem scriptura: *Quanquam.*'
cal. So MS. in both passages.

129 *Sed tu olim magnos.**

145 *mira.*

147 *is datur unus.*

157 *Et qui principio nobis terram dedit aufert**
A quo primo sunt omnia nata bona.

lxxi. 1 *Si qua, Viro, bono sacrorum obstitit hircus.*

So MS., except that it has *hircus*.

lxxiii. 4 'Quare enim mihi displiceat illud emendatissimum in manuscripto? *Imo etiam taedet statque magisque magisque.*' Scal. The MS. has:

Imo etiam tedet stetque magisque magis.

This is remarkable, as Scal. calls the line, which will not scan, 'illud emendatissimum in manuscripto,' and says it is written so in the first printed editions. Most of the MSS. have *stetque magisque magisque*. It is possible, therefore, that Scal. is here quoting, not the Cujacianus, but a reading which he had noted down from some other MS. Yet I do not deny that the words 'illud emendatissimum in manuscripto' most naturally refer to the MS. which he habitually quotes; and it seems, therefore, more likely that there is a mistake in the edition of Scaliger's Commentary which I have used throughout, the Paris ed. 1577. In Graevius' edition of 1680 it is printed *statque magisque magis*, as in the *text* of both editions.

lxxvi. 21 *seu mihi subrepens.** MS., *surrepens*.

lxxx. 4 *Et mollis longo.* 'Scriptura nostra.' Scal.

7 *Sed certe clamant,* 'liber.' Scal.

8 *Ille te mulso,* 'vetus liber.' Scal.

lxxxiv. 4 *dixerit.*

lxxxvi. 2 *hoc ego sic.*

6 *abluit.*

lxxxix. 5 *adtingit.* MS. *attingit*.

xcii. 2 *Lesbia me dispeream nisi amat.*

3 'Manifesto falsum etiam in manuscripto.' Scal.

This and the following verse are omitted in the MS.

xciv. 7 *At Volusi annales paduam portentur ad ipsam.**

9 'Vetus scriptura constanter habuit *laboris*, non *sodalis*.' Scal. The MS. has *laboris*; but Scal. is wrong as to the uniform agreement of the MSS. in *laboris*. The best MSS. omit the word.

xcvii. 3 *nihiloque immundius illud.* 'Scripta lectio.'

Scal. So MS., but *imundius*.

xcviii. 1 *Si quicquam.* 'Vetus scriptura.' Scal.

4 *carbatinas.* 'Liquida scriptura omnium veterum, tam scriptorum, quam formis excusorum.'—Scal. combating Marullus' reading, *cercolipas*. But the MSS. uniformly give, not *carbatinas*, but *carpatinas* or *carpatians*, with a *p*. Our MS. has *carpacias*, and so the Burney, *carpatias*; my *a*, *carphacias*. It is, I think, clear from this, as well as from Scal.'s note on xcv. 9, that he speaks without a very extensive knowledge of the best MSS. of Catullus; and if the Cujacianus is Mr. Allen's codex, Scal. certainly overrated its actual worth, as compared with either the 14th century MSS., or many of the 15th. I suspect that the MSS. of Catullus which Scal. had personally examined were generally of the inferior class, many of which exist still, still more must have existed in his time; and that it is in reference to such MSS. that he rates his Cujacianus so exaggeratedly.

c. 6 'Scriptura, *Perfecta*.' Scal. *perfecta*, MS.

cii. 3 *Meque esse inuenies.*

civ. 4 *Cum Tappone.*

cvii. 7 *aut magis est me Optandus uita.* 'Ex veteri scriptura.' Scal.

cx. 7 *effexit.* 'Vetus lectio.' MS. has *effecit*. Scal.'s *effexit* is not found in any of my MSS.

cxii. 1 *contenta est*, 'liber scriptus.' Scal.

cxii. 1 *que*. 'Scriptus liber more suo.' Scal. MS. q.

cxiv. 1 *Firmanus salius non falso*. 'Scriptura vetus.' Scal. 2 'Melius vetus scriptura : *quæ quot res*.' Scal. *Quæ* seems to be an error in the printing, as it makes no sense. The MS. has *qui quot res*.

cxv. 4 'Repone ex veteri lectione *totmoda*.' Scal. The MS. has *totmodia*, which is also written in capitals in the margin. *Totmoda* is the reading of most MSS.

cxv. 8 *Non homo sed uero*. 'Vetus scriptura.' Scal.

cxvi. 1 *animo veniam dare quæres*. So MS., except that it has *quaeras*.

4 'Vetus lectio : *Telis infestum iicere*.' Scal. The MS. has *Infestum telis ijcere musca caput*, but before the first *i* of *ijcere* another *i* has been written in blacker ink.

8 *At fixus*.

To state my view, then, briefly as to the MS., I think that anybody who kept it by him, whilst reading Scaliger's commentary on Catullus, would, after comparing it for the first few pages with the readings cited by Scaliger, be so convinced that those readings were, as a rule, drawn from it, that he would be able to predict, with the MS. in his hand, what the reading in Scaliger's commentary would be; that he would at times be wrong; but that the proportion of such disappointments to the cases of agreement would be so small, as not to shake materially his conviction of the identity of the two MSS. This conviction would be greatly strengthened, if he then compared Scaliger's readings with any one of the MSS. exhibited in my edition. He might find a good deal of agreement, for all the MSS. of Catullus seem traceable to one archetype; in one, the Burney, he would even find a close agreement in some very curious readings; but he would not be led, by comparing any of them, to more than a belief of an *ultimately* common origin, at various degrees of remoteness. With Mr. Allen's codex

before him, he must either conclude as I have done, or have recourse to the hypothesis, that Scaliger's Cujacianus and Mr. Allen's codex were copied from one MS., and copied with such closeness of agreement as I have failed to detect in any other two MSS. of Catullus, even where I was certain of their intimate relationship to each other.

I shall now examine the readings cited by Scaliger in Tibullus. He calls it generally 'codex noster,' sometimes 'codex infimae vetustatis,' to distinguish it, I suppose, from the 'excerpta pervetusta' of the same poet, which he also used in the constitution of his text, as well as from the 'fragmentum peroptimum et quam emendatissimum a quarta elegia libri tertii ad finem usque' which Cujas lent him, besides the complete MS. I shall only quote the readings which he states to have been in 'codex noster,' or 'codex infimae vetustatis,' though many other readings cited by him as 'prisca lectio,' or 'scriptus liber,' or 'ex veteri membrana,' were, I believe, taken from the complete codex of Cujas.

I. 1.38 E PARVIS. MS. *a puis*.

2.93 *lesisset*.

3.29 *persoluat*.

3.71 *in porta*.

87 *cura*.

4.8 'ARMATUS CURUA.] Hic versiculus liquido extat in nostro infimae vetustatis, quo tamen vetustiore non habent Itali critici, quod ex illorum editionibus certo affirmare possum.' Scal.

So the MS.

4.30 *ante comas*.

4.44 *venturam amiciat*.

54 'POST *obferet ipse volenti*. Noster: *mox offeret ipse roganti*, quod melius est.' Scal. The MS. has *mox offeret ipse roganti*, a slight deviation, but of some moment,

Scal. could hardly have called *afferet* (*oscula*) an *improvement* on *offeret*.

5.14 *Sancta*.

56 *Post agat a triviis*.

69 'MEA furta caueto.] Ita etiam noster, non ut aedam editiones, *mea fata*.' Scal. The MS. has *mea furta timeto*; Scal., intent on *furta*, has overlooked *timeto*.

76 *iam tibi*.

'SERVARE *ah*.] Ah deest in nostro.' Scal. *h* is omitted in the MS.

6.80 *Tractaque de niueo vellere ducta putat*.

7. 3 *Spargere*. MS. *spgere*.

4 *Atlas*. MS. *Atlas*.

18 *Suo*.

42 *Crura licet dura cuspide multa sonent*.

44 *et leuis aptus amor*.

7.53 *tibi dem*.

57 *Nec taceant*.

8.19 *deducit*.

51 *non illi sontica caussa est*. So MS., except that *caussa* is written *ca*.

9.2 *per divos iam*.

25 *permisit leua ministro*.

39 *Quid facerem*.

63 *Illam nulla queat melius consumere noctem*.

So MS., except that it has *Illa*.

10.62 *Sit satis ornatus dissoluisse comae*.

II. 1.82 *Et procul ardentēs hinc procul*.

5.69 *Quodque Albana*.

72 *Multus et in terra*.

3.41 *obsistere*.

42 *Vt multa innumera iugera pascat oue*.

III. 1.8 *uersibus illa meis*.

2.8 *Tot mala perpessæ tædia nota meæ*.

So MS., but *nata*.

15 '*ANIMAMQUE rogatae.*] Ita habent veteres editiones et membrana nostra.' Scal. The MS. has *animamque rogatae*.

4.2 *Quae tulit extrema.*

3 *Ite procul uanum falsumque auertite uisum.*

6.33 '*HEI mihi difficile est.*] Ineptissime haec sunt separata a superioribus in libro infimae vetustatis.' Scal., and so MS.

IV. 1.26 *uouemus.*

142 *Cretacis ardens aut unda Carystia campis.*

So MS., but *ardet*.

169 *vertitur.*

206 '*Lego ex libro nostro, figura.*' So MS.

6.20 *esset amor.*

9.2 '*NATALI ROMAE NON SINIT ESSE SUO.*] Diu est, quum hic versus corruptus est. Ita enim codex infimae vetustatis habet. At optimus ille longe aliter, nempe: *Natali Romae iam licet esse tuo.*' Scal., who is here giving the readings of his two Cujacian MSS., the complete modern, and the fragmentary ancient, which began at III. 4. 65. Our MS. reads *Natali Romae non sinit esse tuae*, not *suo*, which is the reading of the Aldine, 1502, 1515.

13.12 *Tu modo.*

The case is hardly as strong in Tibullus as in Catullus, for the MS. can scarcely be thought to represent anything very unusual in the later poet, whereas in many passages of Catullus, it is the only existing representative of some very remarkable variations. For the criticism of Tibullus, it was the Cujacian fragment which began with III. 4. 65, not the complete, also Cujacian, codex, which Scaliger laid most store by, and the loss of which we have most reason to lament. But the number of cases in which I have quoted Scaliger's readings in Tibullus is only a part of the whole number in which it is probable that he had our MS. before

him, if at least such an inference seems fairly deducible from the constant agreement of the MS. with them. And that it is a fair inference must, I think, be admitted, if not on the strength of Tibullus alone, yet on the combined evidence of the two poets, for I say nothing of Propertius, though it was the coincidence of the MS. with Scaliger's in this poet, that first led Mr. Palmer to believe in their identity.

It remains a question whether Scaliger used this codex for the Priapea.

Two poems generally included in the Priapea, lxxxii., lxxxiii. in the edition of L. Müller, were found by Scaliger, 'inter opera Tibulliana in optima scheda' (Scal. on Priap., xxxi.), which he further defines on lxxxiii. *Quid hoc noui st, &c.*, as 'veteri membrana Tibulliana, quae est penes te, Iacobus Cujacii, vir eruditissime.' This must have been the Cujacian 'fragmentum peruetustum,' which began at II. 4. 65. It cannot have been the complete MS. of Tibullus lent him by Cujas, which contained Catullus and Propertius as well, and would never have been called 'veteris membrana Tibulliana,' as he expressly states it to have been a very modern MS., written just before the age of printing. Scaliger quotes several readings from this scheda' on lxxxii., lxxxiii. I have compared them with our MS. in the latter poem (lxxxii. is not in the MS.)

9 *At O tripalle*, 'optima scheda.' Our MS. has *At O Priape*.

27 'In altera peroptima membrana praecedebat hunc ersiculus iste

inter atra cuius inguina

Latet jacente pantie abditus specu.' Scal.

Our MS. has *quous atra inter inguina*, and omits the line *Latet*, &c.

33 *angue lentior*, 'quam coniecturam meam gaudeo confirmari manu scripta lectione, quae extat in scheda illa optima.' Scal.

Our MS. has *aut languentior*.

42 'Membrana illa fidelissima habebat, *Rigente nervus excubet libidine*.'

Our MS. has *nervos excitet*.

44 'Vetus illa bona membrana, et nonnullae editiones habent: *neque incitare cesset*.' Scal.

Our MS. has *neque mutare possit*, whence it is clear that he is not quoting our MS. I doubt, indeed, whether he quotes it at all in the Priapea; if anywhere, it is in xii. 1, where the original writing has been erased, and *serior* substituted by a modern hand; xlv. 7, where it has *Qua*, both agreeing with Scaliger's readings. But it seems unlikely that he would have called a MS. included in the same volume with the Catullus, Tibullus, and Propertius, which he rated so highly, 'malae notae libro' (on Priap. xii. 1), or 'infimae notae libro' (on xlv. 7); though, on the other hand, the bad opinion he formed of this MS. of the Priapea would be a reason for his quoting it rarely, and referring by preference to the printed editions 'veteres editiones, ad quas semper confugio' (on Priap. xxxii. 7).

R. ELLIS.

THEOCRITEA.

SINCE the Editio Princeps, which is ascribed to the year 1480, Theocritus has issued from the press, in one language or another, more than sixty times. Most of the questions that can be raised in connexion with his poems have been discussed at length again and again. The few sentences from which his meagre biography is gleaned have been exhibited in every possible light—with the painstaking erudition of a German by Hauler;¹ with the greater imaginativeness and grace which characterises French writing by Adert.² His friends Aratus and Nicias, his poetical preceptors Philetas and Asclepiades have been reconstructed with more or less success out of the fossil fragments of information we possess. More than one elaborate monograph³ is occupied with a single popular legend introduced by the poet. Quite a small library has been devoted to the identification of his *flora*. The sources of his materials have claimed the attention of *savant* after *savant*, and, as few texts have reached us in so unsatisfactory a state, so in few cases has the reader a more bewildering variety of conjectural restorations offered him from which to make his choice.

¹ *De Theocriti vita et carminibus.* Dissertatio Philologica. Scripsit J. Hauler, Friburgi Brisigoviae, 1855.

² *Théocrite*, par J. Adert, Genève, 1843.

³ For instance, C. F. Hermann's *Disputatio de Daphnide Theocriti.* Gottingæ, 1853.

I do not here attempt to throw additional light on any of these thoroughly ransacked questions. But a close textual study of the Idylls suggests several other topics, some of which I do not remember to have seen noticed elsewhere. The different passages bearing upon those I have endeavoured to bring together in such a way that any one proposing to take a comprehensive view of the state of society, civilisation, or religious belief of the third century before Christ, may ascertain more easily what is, and what is not, supported by the authority of Theocritus.⁴ Beyond this, though aware how frequently the Idyllist has been studied from a purely poetical point of view,⁵ I have touched on some of his characteristics as an artist, as well as the striking blanks which he presents in more than one respect when contrasted with his Greek predecessors. In particular, some space is devoted to the special phase of the national polytheism here illustrated, and the state of public morality thence resulting.

“La poésie grecque” (writes M. Sainte-Beuve),⁶ “qui commence avec Homère, et qui ouvre par lui sa longue période de gloire, semble la clore avec Théocrite; elle se trouve ainsi comme encadrée entre la grandeur et la grâce.” The two illustrious poets thus coupled together have indeed more than one point of similarity. The latest English editor of the Odyssey has pronounced it the most delightful of all Greek books. Setting aside the obvious identity of metrical form, we shall hardly, I think, find any inter-

⁴ Upon the genuineness of the Idylls so much has been written, and such mutually inconsistent conclusions arrived at by competent authorities without hope of ultimate agreement, that I have thought it best to leave the question in abeyance.

⁵ See for example, Mr. J. A. Symonds'

Studies on Greek Poets; *Theokrits Idyllen mit deutscher Erklärung*, von A. T. H. Fritzsche, Einleitung, p. 20, sqq.

⁶ *Portraits Littéraires*, tome III.—Of the ten Greek books printed before Aldus commenced his labours in 1495, two only were Poets. Curiously enough, these two were Homer and Theocritus.

mediate productions which bequeath to the imagination so rich a legacy of sunny pictures as the Adventures of Odysseus, and the Pastorals of Theocritus. Moreover, if absolutely nothing is known of the life of the author of the former, the biographer of the Syracusan poet cannot boast of being very much better furnished with materials. But here the likeness ends. And though at first sight there is a superficial appearance of agreement, yet one of the topics on which the two poets most widely diverge is their respective treatment of the national religion, which owed so much to the genius of the elder.

Like the English Hellenist Mr. Morris, Theocritus is emphatically the "idle singer of an empty day." His poetry addresses itself to man exclusively from ^{Religion.} the animal side (using the word in no invidious sense); for the rational and spiritual faculties he had no message whatever. He betrays little or no sense of the problems of life, as they presented themselves to such men as Sophocles and Plato. Were it not for the joy of song and sunshine, waterfall and whispering pine, his shepherds, like their flocks, would simply "nourish a blind life within the brain." In truth, the tenants of Olympus here fulfil for the most part a purely literary and poetical function. The popular religion of the later Greeks, idle in the heart, was ever busy on the tongue. Out of the thirty extant pieces (excluding the Epigrams) ascribed to Theocritus, there are but two in which no allusion to the subject is made, while over the greater number, references to the gods and their doings are thickly strewn. Yet, compared with what deserves the name of religion—compared with the exposition of the supernatural and its relation to man in Moses and Isaiah, in Aeschylus and Plato—compared even with the pious *θρηνησις* of such a man as Xenophon, all this is but as a thin and brightly-coloured mist, picturesque and unsubstantial.

We do not find exactly the same type of religion in any two Greek writers. Where no external authority imposed fixity of views, the floating mass of popular legend and superstition naturally took the colour of every individual mind which devoted any serious thought to the subject. From the complex and imposing Olympian system of the great Epics, it is already a long way to the matter-of-fact investigations and identifications of Herodotus, with his avowedly international theology, which, though it reflects on the whole his own genial and happy nature, has always nevertheless behind it a dark background of non-moral Calvinism, and the forbidding doctrine of Nemesis. If Æschylus did not deepen and extend the influence of the stern fatalism which he taught, it was not for lack of earnestness and iteration on the part of the poet; and his younger brethren in the art—in whose hands the element of destiny is allowed to assume a secondary position, while in compensation the laws of eternal morality are still more clearly expounded—exercised to a large extent the function of the modern preacher.⁷ But the Idyllists aimed neither at furnishing the intellect with food, nor the life with a model whereon to form itself. Theocritus himself held neither the elastic polytheism of Homer, nor the *à priori* ethical system of the elder tragedians. He sympathized with none of the ‘phases of faith’ set forth by the characters and choruses of Euripides. One influence, and one only, still existed, which was capable of aiding a Greek who “felt the immeasurable world” in living a life above the standard of the crowd. But no school of philosophy seems to have met with the slightest favour in his eyes. The only allusion (so far as I am aware) to anything of the kind con-

⁷ How wide their influence was, may be guessed from its having reached the social stratum represented by such a boor as the Aristophanic Strepsiades,

who has his deep-rooted preferences for Simonides and Æschylus over their successors.

sists in a playful hit at Pythagorean vegetarianism, the wording of which reminds the reader of the unfavourable estimate of Socrates and Chærephon, expressed by Phidippides in the *Clouds*.⁸ If we may judge from negative evidence alone, it is probable that Theocritus shared the positivism, though not the propagandist zeal, of Democritus and Lucretius. The weight of overhanging destiny is removed; death is regarded with dislike, but not with dread; life contains much to be enjoyed; the sun is shining on the blue sea of Sicily, the breeze is blowing fresh on the "long mountains;" we hear the murmuring of the elms, the babbling of the runnel. Vivons, chantons, aimons. Such is the prevailing tone of Theocritus; nor can we wonder that even the more serious and non-bucolic poems attempt no solution whatever of the problems of life. The whence, whither, and why of human existence are questions which, whether asked in the mind of the poet or not, would have been entirely out of place if discussed by most of his characters. Nevertheless, we may extract from that golden Idyll, the *Thalysia*, a sketch of a typical life lived entirely for its own sake. Every sensation of the moment is regarded as an end in itself, while the mind is open to all the influences of nature, and in charity with mankind; not without some religious feeling moreover towards the beneficent goddess whose figure hovers in the background of the scene. Yet the shortness and vanity of life is recognised with abundant pathos. Daphnis has looked his last upon the dying sun; the eddying wave has closed above

⁸ Idyll xiv., 6, ὥχρὸς ἀνυπόδητος. Ar. *Clouds*, 103, τοὺς ὥχρῳδοντας, τοὺς ἀνυπόδητους λίγεις.—In the case of Theocritus, I refer throughout to Ziegler's second edition, Tübingen, 1867.—That the poet was not ignorant of Plato seems probable, from the simi-

larity of Idyll xiii., 2, ὦ τινα τοῦτο θιῶν ποκα τίκεον ἔγεντο (i. e., "Ἐρω") to Plato, *Symp.* 178, B. τὸ γὰρ ἐν τοῖς πρῆσβυτάτοις εἶναι τῶν θιῶν τίμιον, ἢ δ' ὅς, τεκμήριον δὲ τούτου· γονῆς γὰρ Ἐρωτος οὗτ' εἰσὶν οὔτε λίγονται ὑπ' οὐδενός οὔτε ἰδιώτου οὔτε ποιητοῦ.

his head. The shepherd cannot carry his gift of song with him into the land where all things are forgotten.⁹ The whitening hand of Time steals downwards from the temples;¹⁰ we that are mortal, and cannot see what to-morrow may bring forth,¹¹ are urged to work, while youth and strength are still ours.¹² The sense of human powerlessness in the hands of a superior might, not assumed to be necessarily beneficent or just, yet dangerous to criticise or question, is strongly insisted on;¹³ while, alien as it seems at first sight to the genius of this poet, we have at least one picture¹⁴ which might be catalogued *Tristissima vite*. An existence after death is indeed taken for granted; but its sole possible delight consists in consciousness of the posthumous praise a man has earned during his sojourn on earth.¹⁵ Acheron is ἀνέξοδος,¹⁶ στυγνός,¹⁷ ψυχρός,¹⁸ πολύστονος:¹⁹ the only happier conditions of being are dispensed, with the usual Greek caprice, to such worthies as Hylas, Adonis, Heracles, and the Kings and Queens of Egypt.²⁰ One feels, however, that the real Valhalla of Theocritus, the "choir invisible" which he aspires to join, consists of successful poets, whose song remains to gladden generations to come.

ὦ μακάριστε Κομᾶτα, τὴν θὴν τάδε τερπνὰ πεπόνθεις. . .
αἴθ' ἐπ' ἐμεῦ ζωοῖς ἐναρίθμιος ὄφελος ἦμεν.²¹

Of the various elements which from time to time rose into prominence in Greek religion, most may be traced even in so late a writer as Theocritus. The outline of Homer's elaborate Olympian system is still there, but the colours are faded. While the poetical framework is still

⁹ i., 63. ¹⁰ xiv., 69. ¹¹ xiii., 4. λόγος ἡμεν ἀτερπίων ξυνὸν τοῖσιν
¹² xiv., 70. ¹³ xxvi., 27, sqq. ¹⁴ xxi. ἐρῶσι τὸ φάρμακον, ἔνθα τὸ λᾶθος,
¹⁵ xvi., 44, sqq. There is besides the xxi., 22. ¹⁶ xii., 19. ¹⁷ xvi., 41.
negative advantage of oblivion: ἀλλὰ ¹⁸ xvi., 31. ¹⁹ xvii., 47. ²⁰ xvii., 25,
βαδίζω ἔνθα τὸ μιν κατέκρινες, ὅπῃ 47. ²¹ vii., 83, 86.

left standing, the building which it once supported is rapidly falling into decay. Very nearly all the members of the Homeric Pantheon reappear at least once upon the stage. Besides sixteen lesser divinities and poetical personifications (such as the Horæ, Charites, Muses, Nymphs, Rivers) we have an aggregate of twenty-seven greater gods and goddesses; while only three or four of the Nature-powers—Cronus,²² Tethys, Oceanus, Winds—together with Themis, Atlas, Maia, Phorcys, and the Sirens,²³ are altogether unnoticed. Of the Ministers of Doom, Ate and Aisa have happily vanished, while Moira still furnishes a few conventional *loci communes*. These half-dozen passages,²⁴ however, are not strongly enough accented to prevent our saying that the post-Homeric predestinarianism to misfortune, as held by Herodotus and Aeschylus, assumes its most attenuated form in the Idyllists, if it has not practically disappeared *in toto*. A similar fate has befallen the doctrine of Nemesis. The majority of the other subsequent or extra-Homeric developments remain. Cybele, Hecate, Plutus, Priapus, the Satyrs appear at least once, while special prominence is given to the story of Aphrodite and Adonis. On the other hand, her relations with Eros or the Erotes (the poet wavers between the singular and the plural)

²² Even Cronus furnishes the usual patronymic.

²³ To these may be added the mythological characters Calypso, Perse, the Giants, the Titans, Otus and Ephialtes.

²⁴ The passages are such as these: τὸν δ' Ἀφροδίτα ἤθειλ' ἀνορθῶσαι· τὰ γὰρ μὲν λίνα πάντα λειοίπει ἐκ Μοιρᾶν, I. 138; αἰατὶ τῷ σκληρῷ μάλα δαίμονος, ζς με λελόγχει, IV. 40; ἀλλ' ἦτοι τούτων μὲν (after a prayer) ὑπέρτεροι Οὐρανίῳις ἔσسونθ' ὡς ἐθίλοντι, xii. 22; εἶπε, τὰ δ' οὐκ ἄρ' ἐμελλε θεὸς με-

ταμώνια θήσειν, XXII. 180; οὐκ ἔστιν ἀλύξαι ἀνθρώποις, ὃ τι Μοῖρα κατὰ κλωστήρος ἐπείγει, xxiv. 69.—δῶδεκά οἱ τελίσαντι πεπρωμένον ἐν Διὸς οἰκεῖν μόχθους, ib. 82.—ἔσται δὲ τοῦτ' ἄμαρ, ib. 86., cf. 73. The omnipotence of Eros probably occupied a larger space in the mental horizon of Theocritus than that of Destiny. ὅστις δοκίμοι τὸν δολομάχανον νικάσειν Ἔρον, οὗτος δοκίμοι τοῖς ὑπὲρ ἀμμάτων εὐρην βραϊδίως ἄστερας ὀπποσάκεις ἔνεια, xxx. 26.—ὃς καὶ Διὸς ἔσφαλε μίγαν νόον, ib. 31.

are left undefined.* A single gloomy element has been introduced—in the piece entitled the Bacchæ. So uncongenial to the creed of Theocritus does this vein of thought, or rather thought-crushing terror, appear, that it might be fairly used as a collateral indication of the spuriousness of the twenty-sixth Idyll. But the most noticeable figure added to the list of epic gods is that of Pan. Though his name is by no means so frequently introduced as that of Zeus, he leaves on the whole a more vivid impression on the reader's mind than any other divine personage in Theocritus. He in fact alone is conceived as mingling to some extent among his worshippers. The only approach to an interchange of affection between a god and a mortal is contained in the relations of Pan and Daphnis, and there is a touch of genuine pathos in the scene where the dying lad calls his divine companion to his side,²⁵ and bequeaths to him the σύριγξ that he cannot carry with him into the realm of shadows.

ὦ Πάν Πάν, εἴτ' ἐσσι κατ' ὄρεα μακρὰ Λυκαίω. . . .
 ἐνθ', ὦναξ, καὶ τάνδε φέρειν πακτοῖο μελίπνουν
 ἐκ κηρῶ σύριγγα καλάν, περὶ χεῖλος ἐλικτάν.
 ἦ γὰρ ἐγὼν ὑπ' ἔρωτος ἐς Ἄιδαν ἔλκομαι ἤδη.²⁶

This seems the sole trace of sympathy with human suffering attributed to any supernatural being in these poems, and even here half of the scene is left to the imagination. The comical side of the conception of Pan is represented by the ignoble castigation which falls to the lot of the god in his own peculiar home Arcadia, at the hands of his juvenile worshippers, *ὅτε κρέα τυτθὰ παρείη*²⁷; and by the undignified epithet "spindle-shanked" (*κα-*

²⁵ For example, compare xix. with xi. 2. The *Κηριοκλίπτης*, however, is not considered genuine by most editors.

Cf. also vii. 117, 96; i. 97 sqq.

²⁶ Cf. Epigram II.

²⁷ vii. 108.

κόκναμος)* applied to a *class* of Pans or Fauns.²⁸ The patron of the shepherd world, he takes his siesta at noonday, under penalty of his displeasure enforcing silence on the devotee: a duty (if we are to credit the author of the fifth Epigram) by no means religiously observed.²⁹ Not from Theocritus certainly can the lofty conception be gathered, which Elizabeth Barrett Browning expresses so often and so well, of the "great god Pan," at whose death all the "Gods of Hellas are desolate;" who laughs as he sits by the river, "making a poet out of a man":—

" 'This is the way,' laughed the great god Pan
(Laughed while he sat by the river),
'The only way, since gods began
To make sweet music, they could succeed.'
Then, dropping his mouth to a hole in the reed,
He blew in power by the river.

Sweet, sweet, sweet, O Pan!
Piercing sweet by the river!
Blinding sweet, O great god Pan!
The sun on the hill forgot to die,
And the lilies revived, and the dragon-fly
Came back to dream on the river."³¹

²⁸ iv. 63.

²⁹ Burlesque representations of other divinities also are hinted at. Thus we learn from xxiv. 29 that the gods in general have an aversion to poisonous serpents. The eyes of γλαυκῶπις Athene must have lost somewhat of their lustre since Homer's day, seeing that the rejected suitor in the twentieth Idyll boasts of δμματα χαροπώτερα πολλὸν Ἀθήνας. Cf. ii. 79, στήθια δὲ στίλβοντα πολὺ πλείον ἢ τὸ Σελάνα.

³⁰ Joseph Justus Scaliger takes a somewhat different view of the "friendly Pan." (Epistolæ, Lib. i. 9, ed. Elzev. 1627.) "Hinc (from the LXX. rendering δαίμων in Psalm xci. 6) Sophistæ hariolati sunt Dæmonas in meridi-

vagantes. Et sane vetustas tales Dæmonas meridiæ infestos esse credebat, ut ille pastor Theocritianus:—

οὐ θέμις, ὦ ποιμάν, τὸ μισαμβρινόν,
οὐ θέμις ἄμμι
Συρίσδεν' τὸν Πᾶνα διδοίκαμες, κ.τ.λ."

Is not this rustic superstition an instance (on a microscopically minute scale it is true) of human nature creating a pseudo-religious dogma to justify its own desires? The siesta was an admirable institution—it naturally protected itself by the best religious sanction at hand; and the guilty disturber of the "noon day quiet" was menaced with the "wrath that sat upon Pan's nostril."

³¹ See the poems, "The Dead Pan," and "A Musical Instrument."

Ἐκ Διὸς ἀρχόμεσθα καὶ ἐς Δία λήγετε, Μοῖσαι.

Thus speaks the poet at the opening of the "Praise of Ptolemy;" and we must admit that he has abundantly fulfilled his promise by invoking, appealing, alluding to, and swearing by Zeus oftener than any other god, both in his writings as a whole and in this hymn in particular. Yet in eleven or twelve of the Idylls we do not hear of him at all. The reader will look in vain for the attribution of any moral³³ quality to the ruler of the upper world. *Ex officio* he has no doubt a species of omniscience,³⁴ and is invoked as the giver of earthly blessings.³⁵ But the only direct action ascribed to this somewhat faintly outlined personage is the unrighteous destruction of a hero on whose side every right-minded reader's sympathies are enlisted; together with the apotheosis—if action it can be called—of Ptolemy's father. In the character of the Homeric elemental Zeus he appears but twice.*

In fact, for obvious reasons, when we do find the principles of justice or benevolence ascribed to a divine power, it is not (with perhaps one exception) to any individual god, but to an abstract θεός or θεοί. Thus we hear with satisfaction in the tenth Idyll that εὔρε θεός τὸν ἀλιτρόν: in the twenty-third that ὁ θεὸς οἶδε δικάζειν (unless this refers to Eros, the special divinity of the piece; in which case it must be pronounced an aberration from his usual course of conduct). So we find in the Ἡράκλῃς λεοντοφόνος,

ὦ πόποι, οἶον τοῦτο θεοὶ ποίησαν ἄνακτες
θήριον ἀνθρώποισι μετέμμεναι, ὥς ἐπιμηθές

which refers to the κύνας in l. 68: while a happy thought is, as in Homer, ascribed to divine suggestion:

³³ Unless the following conventional phrases be reckoned exceptions:—πᾶν ἐπ' ἀλαθείᾳ πεπλασμένον ἐκ Διὸς ἔρνος, vii. 44, and ἀρίτην γὰρ μὲν ἐκ Διὸς

αἰτίω, xvii. 137.

³⁴ Διὸς νοίοντος ἅπαντα, xxiv. 21.

³⁵ xviii. 52; xxviii. 5.

³⁶ iv. 43, and xiii. 11.

ἀθανάτων τις ἐπὶ φρεσὶ θῆκε νοῆσαι (ib. 276).

Finally, a passage of utilitarian tone, which, far as it is below such golden utterances as Juvenal's "Carior est illis homo quam sibi," or Marcus Antoninus' pithy Συζῆν θεοῖς, has nevertheless, if genuine, a sincerity of belief about it which can hardly be paralleled out of the other writings of Theocritus :—

κηδόμενοι γάρ
ἀθανάτων αὐτοὶ πλείον ἔχουσι βροτοί.³⁶

Real piety of feeling, in our sense of the word, is of course not to be thought of in connexion with popular Greek religion; but the tone of the address to Demeter at the end of the seventh Idyll is healthy and natural. Gratitude—a rare phenomenon—to the same goddess is expressed in the 33rd and following lines :—

Δαμάτερι δαῖτα τελεῦντι
ὄλβω ἀπαρχόμενοι· μάλα γάρ σφισι πίονι μέτρῳ
ἀ δαίμων εὐκριθὼν ἀνεπλήρωσεν ἁλῶν.³⁷

The superstitious observances rather minutely described in the "Sorceress" are apparently of oriental origin: the native traditional practices of the same kind being of a less deadly description. That which occurs most frequently is the simple (and, let us hope, effectual) rite for averting the evil eye :—

τρίς εἰς ἐμὸν ἔπτυσσα κόλπον.³⁸

³⁶ Epigram xii. 5.—Of the remaining deities, Aphrodite and Herè alone have any positive action attributed to them. Apollo is a mere lay figure. If any one cares to examine more closely the comparative use which Theocritus has made of this poetical machinery, he will find that Apollo, Athene, Eros, Dionysus, and Demeter are mentioned or alluded to about five times each; Herè four

times; Rhea, Helios, Hermes, and Heracles twice; and Poseidon, Leto, Dione, Ares, Hephæstus, Persephone, Plutus, Cybele, Iris, Hebe, Amphitrite, Da, Phaethon, Semele, and Endymion once.

³⁷ Compare the acknowledgment of temporal blessings in ix. 15, sqq.

³⁸ vi. 39; cf. vii. 127, and xx. 11.

While the victim of ill-humour is recommended

σκίλλας ἰὼν Γραίης ἀπὸ σάματος αὐτίκα τῶλλει.³⁹

A more graceful custom is that of ascertaining the state of another person's heart by the love-afar leaf,⁴⁰ which reminds the reader of the exquisite garden scene in Faust:—

Margarete. Lasst einmal!

(Sie pflückt eine Sternblume und zupft die Blätter ab, eins nach dem andern.)

Er liebt mich—Liebt mich nicht.

(Das letzte Blatt ausrupfend, mit holder Freude.)

Er liebt mich!

An extension of the popular religion on state authority is to be found in the apotheoses of deceased monarchs, which had already begun.⁴¹ The distinction between mortals and immortals was after all but carelessly drawn by the Greek mind. Alexander, Ptolemy, and his parents all furnish instances of the missing link—the *tertium quid*. A few centuries later political hagiology had its well-stocked calendar. Utterly perfunctory, formal, and conventional as was this marvellous cult, it yet had sting enough to persecute, and can furnish its list of obscure victims. Theocritus treats it exclusively from the poetical side, assuming, nevertheless, an appearance of belief in the power of such brand-new divinities for good,⁴² which does not say much for his independence of spirit.

This being the theology of the time, it is hardly to be wondered at that such morality as is to be traced
 Morality. in the Idylls is entirely *de convenance*, traditional

³⁹ V. 121; cf. 123.

⁴¹ Idyll xvii.

⁴⁰ iii. 29. Other superstitious notions are alluded to in iii. 31; xii. 24; x. 30.

⁴² xvii. 125, πάντεςσιν ἐπιχθονίοισιν ἀρωγός.

and destitute of fundamental principle. Even ethical commonplaces, so frequent in most Greek poets, are scarcely to be found at all in Theocritus.⁴³ His characters, however, represent widely different types of moral feeling. In too many cases we have little better than the habits of primeval man, painted occasionally (as at the conclusion of the fourth Idyll) with some apparent disgust, but sometimes also with indifference. In one case indeed—perhaps the only instance of unpardonably bad taste⁴⁴ in Theocritus—a lower depth than that of animals is reached. One would not infer from the Panegyric on Ptolemy, that the king's marriage with his sister—a connexion so abhorrent to

⁴³ At xvi. 64, there occurs a remark on the difficulty of conquering habits of avarice once ingrained. Perhaps iv. 42, xxv. 50 and 67, might be also reckoned under this head.

⁴⁴ I. 87.—Unless the reader likes to add the questionable propriety on the poet's part of making Aeschines in a fit of jealousy *strike* his innamorata Cynisca (xiv. 34).—I cannot but disagree here with Paley's interpretation:—"Ἐνὶ κόρῃ, in faciem canentis, sc. Thessali. Minime vero puella, quod putat Wuestemann, Scholiastam secutus." For Aeschines proceeds immediately to upbraid, not (as Paley's view would require) the *singer* for his want of breeding, but the girl herself for being attached to another: 'Ἐμὸν κακόν, οὐ τοι ἀρίσκω; ἄλλος τοι γλυκίων ὑποκόλπιος, κ. τ. λ. Wuestemann is, however, by no means alone in his interpretation, as Paley seems to suppose. He is followed by Fritzsche:—"pulsavi eam pugno:" as well as by Calverley:—"I drove at her face, one, two." So also Hartung:—

Und jetzt schlug ich—du kennst mich, Thyonichos—hinter die Ohren,
Rechts und links mit der Hand: sie raffte
die Kleider zusammen, u. s. w.,

which is confirmed by the comment:—

"Die Worte von ἔμὸν κακόν an spricht Aeschines theil swährend dem Zuschlagen, theils während dem Fortgehen des Mädchens." So also the author of "Arethusa":—

Aber ich, den du kennst, Thyonichos, schlag' ins Gesicht sie.

So finally (as Paley says) the Scholiast: —τὴν σιάγονα αὐτῆς ἔπαισα.

Notwithstanding this palpable instance of rough treatment of women, I am by no means disposed to accede to the wonderful alteration of xi. 70, which Fritzsche has adopted. The Cyclops complains of his mother's want of sympathy, and proposes (according to Fritzsche) to take revenge upon her in the following manner:

φάσσω τὰν κεφαλὰν καὶ τοὺς πόδας ἀμφοτέρως νεν

σφύσσειν, ὡς ἀνὰ θῆ, κ. τ. λ.

The usual reading being

φάσσω τὰν κεφαλὰν καὶ τοὺς πόδας ἀμφοτέρως μέν, κ. τ. λ.

Greek sentiment in general, though not absolutely unknown at Athens—had given occasion to any remarks; although it is well-known that Sotades lost his life in consequence of his adverse criticism. On the other hand, there are many instances of freshness, naturalness, and even delicacy of feeling, which are as salt to the whole. The affection of a girl who had died through grief for her little brother is indicated in a few simple lines in the twenty-fifth Epigram. On being called *καλὸς καλός* by the maiden of the “married brows,” the modest Daphnis casts his eyes to the ground, and passes on his way in silence.⁶ The Epithalamium of Helen is full of natural and unsophisticated purity of heart. In the twenty-third Epigram the money-changer commends his own integrity in a way which causes the reader to suspect that the virtue was exceptional; but the tone of the thirteenth and eighteenth is worthy of all praise, while there is a moral delicacy in the twenty-first, which it would not be easy to parallel out of the writings of that age.

‘Ο μουσσοποιὸς ἐνθάδ’ Ἰππῶναξ κεῖται.
εἰ μὲν πονηρός, μὴ ποτέρχεν τῷ τύμβῳ,
εἰ δ’ ἐσσι κρήγνός τε καὶ παρὰ χρηστῶν,
θαρσέων καθίζευ, κῆν θέλης ἀπόβριξον.

Crying as were the vices of the historical Greeks, from

This he renders:—“I intend to thrash her head and legs that they may swell” (!) *Φλασσῶ* is, indeed, found in at least two Milan and two Paris MSS., but the tasteful alteration of *μεν* into *νιν* is all Fritzsche. It may be safely affirmed that none but a German would have wantonly attributed so ungallant a sentiment even to the Cyclops. This is surely the very Nemesis of would-be originality in criticism: nor is it the only instance in which the same editor’s potent “Ich

lese” (like the wand of Circe) has effected transformations in the text of Theocritus more striking than agreeable. It is to the credit of English good taste that neither Paley nor Snow (Kynaston) deign to notice this “restoration.”

⁶ viii. 73. This, however, may be, not typical, but individual, and part of the somewhat perplexed character of Daphnis. See C. F. Hermann’s *Disputatio de Daphnide Theocriti*.

one moral blot at all events, which has forced itself into a melancholy prominence in our own age and country, the classes here depicted seem remarkably free. Hardly a single allusion to drunkenness⁴⁶ occurs; while of the special defect of modern Sicily, the insecurity of life, we hear nothing whatsoever, if one instance of *vendetta* threatened by a jealous woman be excepted.⁴⁷ This is the more to be wondered at when we consider the disturbed state of the island at the time. Indications of a sense of *duty* are difficult to find. An approach to the sentiment animates part of the reapers' song in the eleventh Idyll, which implies a conscientious view of the performance of hired labour:—

σφίγγει, ἀμαλλοδέται, τὰ δράγματα, μὴ παριών τις
εἴπη· σῦκιναι ἄνδρες, ἀπώλετο χούτος ὁ μισθός.⁴⁸

On the other hand, the βουκόλοι are restrained from dishonesty solely (according to their own outspoken confession) by the fear of detection.

Even this standard of morality was attained not by the aid, but in spite, of the prevalent religious notions. Within the narrow limits of this single poet's writings, too many instances may be discovered of doubtful proceedings justified to the mind by the precedent or authority of the gods of mythology. In one poem at least we have the not uncommon spectacle of a kind of conflict between opposing feelings, each represented by its presiding deity, the wrath of either of whom it is thus impossible to escape.

ΔΑΦΝΙΣ. φεῦ φεῦ τῆς Παφίας χόλον ἄζω, καὶ σὺγε κώρα.

ΚΟΡΗ. χαίρῃ τῷ Ἀ Παφία· μόνον Ἰλαος Ἄρτεμις εἶη.

ΚΟΡΗ. Ἄρτεμι, μὴ νεμέσα σέο ῥήμασιν οὐκέτι πιστῇ.⁴⁹

⁴⁶ Polyphemus (vii., 153) and Heracles (xvii., 28) are said to have been slightly affected by their nectar, and the Spartan girls profess to account in the same way for Menelaus' early disappearance (xviii., 11). In the eighth

Epigram a victim to a fit of intoxication with a *discite moniti* records his fate.

⁴⁷ ii., 160.

⁴⁸ x. 44, 45.

⁴⁹ xxvii., 14, 15, 62.

These primitive questions of casuistry were, however, probably left for solution to the impulse of the moment. A more important invasion of natural right feeling appears in the already quoted *Βάκχαι*. The commentary on the fate of Pentheus reveals a strange state of the conscience; though by no means without its parallel at the present day. Arbitrary power is exhibited in action quite apart from the principles of morality:⁵⁰ and the ordinary emotions excited on the occasion are to be suppressed (such is the doctrine) for fear of personal consequences.

οὐκ ἀλέγω μηδ' ἄλλον ἀπεχθόμενον Διονύσῳ
 φροντίζοιμ' εἰ καὶ χαλεπώτερα τῶνδε μογήσαι. . . .
 χαίροι δ' εὐειδῆς Σεμέλα καὶ ἀδελφεαὶ αὐτᾶς. . . .
 αἱ τόδε ἔργον ἔρεξαν ὀρίαντος Διονύσω.
 οὐκ ἐπιμωματόν. μηδεὶς τὰ θεῶν ὀνόσαιτο.⁵¹

It is but a glimpse of the darker side common to many so-called religious systems; of which Euripides and Catullus,⁵² among others, have furnished us with a more critical exposition. Another striking illustration of the same resolute callousness in the Hymn to Castor has been already mentioned. Here the poet entirely divests himself of his sense of justice. No word of sympathy for the righteous cause of the brothers Lynceus and Idas is dropped, and the cruel murder⁵³ of the latter by the grossly partial act of

⁵⁰ It will hardly be contended that the ἔβρις of Pentheus was a sin deadly enough to deserve the fate it drew upon him. Theocritus is, however, concerned with little but the judicial execution; and although the sufferer is indirectly charged with *δυσειβεία* in line 32, yet the vehement deprecation of criticism at the end shows that even a professed believer found considerable difficulty in justifying to himself the

conduct of the god.

⁵¹ xxvi., 27, 28, 35, 37, 38. I quote in this instance from Fritzsche's text (Schulausgabe, 1869).

⁵² In the *Attis*.

⁵³ xxii., 211. The cause of the fray is given quite differently by Pindar. (Nem. x. 111.) Is this owing to his known regard for the good character of the gods?

Zeus is related without a shadow of pathos or commiseration.

The outward conditions of life in Magna Græcia and Alexandria at the time may be gathered from a number of incidental allusions, some of which are not without interest. A tolerably high state of civilisation is implied by the ease and frequency of travelling⁵⁴—adopted in more than one instance as a cure for heartache, and probably a more successful one than the poetical remedy which Theocritus so confidently recommends to his medical friend Nicias.⁵⁵ Security may be inferred, among other things, from the shepherds' habit of sleeping in the open air on the mountains.⁵⁶ Ptolemy, of whose domestic prosperity we have so detailed an account in Idyll XVII., seems to have improved the police arrangements of Alexandria, if this be not a subtle compliment on the poet's part:—

οὐδείς κακοεργός
δαλείται τὸν ἴοντα παρέρπων Αἰγυπτιστί.⁵⁷

The want of our modern public conveyances is felt in the record of the experiences of the "Two Ladies of Syracuse" doing battle with an Alexandrian crowd. Nevertheless, though quite unprotected (an illustration by the way of the greater freedom of women among Doric populations), they accomplish their mission with no further accident than the loss of a *θερίστριον*. Thus Simætha goes to the show *en grande tenue*,⁵⁸ allowing the train of her handsome dress to sweep after her *μέσον*⁵⁹ *κατ' ἀμαξιτόν*. In the *Ἀλιεῖς*, the extent and variety of the fishing-tackle and other implements contrast strangely with the utter poverty of the hut and its

⁵⁴ The transport of live stock is implied in iii. 5.

⁵⁵ xi. 2.

⁵⁶ ἀδὲ δὲ τῷ θέρειος παρ' ὕδωρ ρίον αἰθριοκοιτεῖν, viii. 77. Cf. παρ' ὕδωρ ψυχρὸν στιβάς, ix. 9, and, per-

haps, vi. 33.

⁵⁷ xv. 48.

⁵⁸ ib. 69.

⁵⁹ ii. 73.

⁶⁰ μέσον—So Ziegler.

occupants. On the other hand, the house of the *δουρgeois* Aeschines, of whose *πόρος ἀδύς* we are given the entire *menu*, is one of tolerable comfort, if not elegance.⁶¹ A graceful scene is formed by a party of labourers in Idyll X. The girl flutes to the reapers,⁶² while they from time to time enliven their toil by singing improvised or traditional Education. ballads. In fact, the chief education of the classes here dealt with consists of musical and poetical accomplishments. Acquaintance with mythology is ascribed to persons of every rank. Even the woodcutter Morson is a sufficient connoisseur of verse-making and *σῦριγξ*-playing. He decides between the rival candidates on grounds which it is somewhat difficult for the modern reader to appreciate, but without the least hesitation. In the fourth Idyll⁶³ skill in the use of the pipe is placed on the same level with success as a *βουκόλος*. Instruments, music, and words were alike due to the herdsman himself.⁶⁴ Solely on the strength of his eminence in these accomplishments Daphnis is idealised as

τὸν Μοῖσαις φίλον ἄνδρα, τὸν οὐ Νυμφαῖσιν ἀπεχθῆ.⁶⁵

Beyond this, however, a fair general education, whether truly or not, is attributed to the roughly-clad goatherd Lycidas,⁶⁶ who is assumed to understand the literary allusions in Simichidas' song; while his own ballad, and the reply elicited between them, range (from a geographical point of view) from one extreme to the other of the *Orbis Veteribus Notus*.⁶⁷ The shepherd in Idyll V. 101 is ac-

⁶¹ We read of the *μαλακὰ δίφραξ*, *ἀμφίθυρον*, *δικλῆς*. xiv., 41, 42.

⁶² Women are represented as playing on instruments in v. 89: x. 16 & 34. To these may be added the *prima donna* in Idyll xv.

⁶³ 27, 29.

⁶⁴ See iv. 28: vii., 51: viii., 18 & 23.

⁶⁵ i. 141.

⁶⁶ vii. 51. "Bei diesen litterarischen Anspielungen im Munde des *Hirtens* ist Theokrit unleugbar einmal aus seiner Rolle gefallen."—Fritzsche *ad loc.*

⁶⁷ *Καύκασον ἰσχατόωντα*. . . . *ἴθην οὐκίτι Νεῖλος ὀρατός*, vii. 77 and 114.

quainted with the fame of Praxiteles. The inscription on "Helen's Tree,"

σέβου μὲν Ἑλένας φυτὸν εἰμί,

and the story of Linus teaching Heracles his letters are, of course, poetical anachronisms;⁶⁶ but many of the Epigrams imply a widely diffused knowledge of reading, if not of writing; which is confirmed by the injunction of the despairing lover:—

γράψον καὶ τὸδε γράμμα, τὸ σοῦς τοίχοισι χαράξω

"τοῦτον ἔρωσ' ἔκτεινεν. ὁδοιπόρε, μὴ παροδεύσης," κ. τ. λ.

Among other exercises and accomplishments, dancing⁶⁷ and gymnastics⁷⁰ are rarely alluded to in comparison with music, while of swimming (strange to say) there is not a trace.⁷¹ The Cyclops says that he will be obliged to take lessons in the art in order to visit Galatea in her subaqueous home.⁷²

⁶⁶ xviii., 48 and xxiv., 104.

⁶⁷ i. 91—vii. 153—x. 35—xiii. 43—xviii. 2.

⁷⁰ ii. 80—vii. 125—xviii. 23—xxiii. 56.

⁷¹ It follows that the cultivation of personal cleanliness was at as low an ebb as in the south of Italy at present. A goatherd is informed by his companion that in this respect his goatskins are even more objectionable than himself (v. 49), and the same failing is part of the indictment against the rejected suitor in Idyll xx. In fact the love of frequent bathing, of which we hear so much in connexion with the Egyptian priests, the Homeric Greeks, imperial Rome, and which has reappeared in modern England, seems intermittent in the history of Europe.

⁷² xi. 60: δύνειν ποτὰ νεῖν τε μαθεῖμαι, αἰεὶ τις σὸν ναὶ πλὴν ἔτιος ᾧδ' ἀφίηται. The first two words are a probable correction of Madvig's (*Ad-*

versaria Græca, p. 295) for the vulg. νῦν αὐτόγα or αὐτόθα. But I must take exception *en passant* to two other alterations proposed in the same work (pp. 294, 295):—

ποίας' ὄντι καμῖσθ', ἔκ' [sic] πάλιν ἔδε φέγγας (viii. 68.);

and

νεβροῦ φθεγγόμενος δ' ὡς [sic] ἐν ὄρεσιν ὤμα φέγγας ἄε. (xiii. 62.)

How these hexameters are to be scanned Madvig does not stop to explain. For the laws of the iambic trimeter he seems to cherish an equal contempt. At p. 245, he proposes to end a senarius with the word (which he says is *aptissimum*) ἑξισφαιρισμένοι, by way of an improvement on Nanck's ἑξισφραγισμένοι: both "corrections" involving the solecism of a spondee *in quarta sede*. So again, at page 309, Sophocles is made to write:—

καὶδὲς ἀνίσταται μοι σὺν ἁλλοῖσιν αἰῶσι.

The rule of the Pause is treated in the

This standard of manners, if truly portrayed, contrasts very favourably with that of most European nations at the present day. In the purely pastoral pieces the interlocutors certainly do not spare one another, and the fourteenth Idyll turns upon a flagrant instance of want of tact. But against these must be set the admirable tone of the seventh and ninth, the courtesy of the stranger in the fifteenth,⁷³ and the natural good breeding of the *φντῶν ἐπίουρος ἀρρετρεύς* in the twenty-fifth,⁷⁴ which prompts him to refrain, through *αἰδώς*, from asking his visitor who he is. It seems certain that the current mythology, with all its moral drawbacks, did much to redeem the life of the masses from utter meanness and narrowness of thought, by supplying so large a variety of ideals to the imagination. Compare the state of mind of the *Northern Farmer* (New Style) with the poetical day dreams of the love-sick reaper of Sicily :⁷⁵

αἶθε μοι ἦς, ὅσσα Κροῖσόν ποκα φαντὶ πεπᾶσθαι,
 χρύσειοι ἀμφότεροί κ' ἀνεκείμεθα τᾷ Ἀφροδίτῃ,
 τῶς αὐλῶς μὲν ἔχοισα καὶ ἡ ῥόδον ἢ τύγε μᾶλλον.

And I think it possible that the remarkable absence of *snobbishness*—in the sense of mean regard for wealth and rank as such—as well as of discontent with the humbler occupations may be ascribed to this feature of the popular religion; which, by representing gods, demi-gods, and

same way. At p. 195 Madvig suggests :—

ἦδη τὰ τοῦδ' ὅτ' οὐκ ἀτίμη ἦν θεοῖς.

At p. 200 :—

ἐκμαρτύρησον προῦμοσάση μὴ εἰδέναι.

To this we have a note appended: "Hanc emendationem in margine exempli mei sic notatam reperi, ut incertus sim, meane an alius sit." He may, I think, rest satisfied that (as far as the metre is concerned) it is his own property.

The same error recurs at pp. 204 and 247; and other metrical peculiarities at pp. 201 and 215. These details are hardly worth noticing in comparison with the veteran Latinist's vast services to literature; yet one cannot help regretting even the spots in so bright a sun.

⁷³ l. 73.

⁷⁴ l. 65.

⁷⁵ x. 32, sqq.

heroes of story as having pursued so many lowly callings, did something towards poetising and exalting the inferior grades of life.⁷⁶

Theocritus is by no means deficient in genuine power, though passages of this kind are of much less frequent occurrence than those conceived in a lighter mood. Theocritus' power. That he could paint passion as intensely as most modern poets, the second Idyll proves. Allowing for the difference in size of the canvas, we have the same sense of restrained force—of a complete effect produced by a few masterly touches, as at the end of the First Part of Faust—the scene in the prison—for which I can find no other epithet than *déchirant*. In this respect Goethe shows how deeply he had drunk of the spirit of Hellenic art. Few contemporary poets, I think, would have retained so complete a mastery over themselves at such a crisis of the drama, as to be able, with perfect collectedness, to choose out of the mass of material which would crowd upon the brain those strokes, and those only, which were necessary to a complete effect. Surely De Quincey⁷⁷ must have overlooked the Pharmaceutria in alleging the universal passionlessness of ancient literature compared with modern, as the reason why Bentley, triumphant in the former department, failed so lamentably in editing “Paradise Lost.” No passage in Milton equals the second Idyll in intensity and glow. The fire that consumes Simætha finds vent in an exceeding bitter cry :

αἰαὶ Ἔρως ἀνιηρέ, τί μεν μέλαν ἐκ χροῶς αἷμα
ἐμφὺς ὡς λιμνῆτις ἄπαν ἐκ βδέλλα πέπωκας ;

Slight as is the portrait of Delphis, it is easy to recog-

⁷⁶ Thus the shepherd in Idyll xx. does not wish himself other than he is, but seeks to raise the conception of the occupation which has caused his suit to

be rejected. Compare the utter contentment pervading Idyll ix. Slightly different are x. 52 and xxi. 59.

⁷⁷ Works, vol. vi. p. 126.

nise the well-bred, smooth-tongued light-of-love, handsome, heartless, animal, and thoroughly Greek. Her feelings at his entrance are depicted with a force scarcely inferior to that of *Fatima*. I know not if Theocritus be not here greater, because simpler and more natural :

πᾶσα μὲν ἐψύχθην χυόνος πλέον, ἐκ δὲ μετώπῳ
 ἰδρώς μευ κοχλίδεσκεν ἴσον νοτίαισιν ἑέρσαις,
 οὐδέ τι φωνᾶσαι δυνάμαν, οὐδ' ὅσσον ἐν ὕπνῳ
 κρυζέονται φωνεῖντα φίλων ποτὶ μητέρα τέκνα·
 ἀλλ' ἐπέγην δαγῶδι καλὸν χροῶ πάντοθεν ἴσα.

The fourteenth Idyll, again, is an admirable specimen of vigour. Its personages live and move before our eyes. Nothing can be more vivid in its way than the little social storm which is thus preluded :—

οὐ φθελγῇ ; λύκον εἶδες ; ἔπαιξέ τις ὥς σοφός, εἶπε,
 κῆφᾶπι· εὐμαρέως κεν ἀπ' αὐτᾶς καὶ λύχνον ἀψας.⁷⁹

The dramatic part of the fifteenth is equally instinct with life. Even from the few instances at hand we can see that Theocritus possessed the talent of character-painting in no ordinary degree. These female figures in particular stand out in the recollection of the reader with marvellous distinctness ; drawn indeed in outline only, but with a bold, free touch. The Adoniasusæ are just such women as every one seems to himself to have met with in a crowd ; and their conversation is seasoned with much of the natural salt in which George Eliot's rural oddities delight.

Although the first impression recalled to the mind by the name of Theocritus is (in a different sense from Mr.

Pathos. Arnold's) that of "sweetness and light," he was too great a master of his art to omit the shadows necessary to heighten the effect of the sunshine. Even in his most light-hearted mood he breaks off occasionally to contrast the pathos of human life with the seeming bright-

⁷⁹ XIV. 22, 23.

ness of the present moment. The fourth is one of the gayest pieces in the whole collection; yet, for an instant, the eyes of Battus, who is overcome by the sudden thought of his loss, seem to fill with tears:

ὦ χαρίεσσ' Ἀμαρυλλί, μόνας σέθεν οὐδὲ θανοίσας
λασεύμεσθ' ὅσον αἶγες ἐμὴν φίλαι, ὅσσον ἀπέσβης.⁷⁰

True, this state of mind is of the briefest possible duration; his *θαρσέω* is elicited by a few lines of well-meant consolation, containing perhaps the saddest sentiment in the whole volume:—

ἐλπίδες ἐν ζωοῖσιν, ἀνέλπιστοι δὲ θανόντες.

In several instances, melancholy subjects of song are represented as chosen by preference on occasions of the greatest festivity, or by persons in the happiest possible mood. Thus Thyrsis, in the first Idyll, celebrates the death of Daphnis. In the seventh, Lycidas, at the height of his enjoyment of the banquet to be held in honour of the safe return of Ageanax, promises himself to hear the same pathetic story from the lips of Tityrus. Even in this a knowledge of human nature is incidentally shewn. In truth, it is only when subjectively happy that we can bear to enter into fictitious grief.⁷⁰

Pathetic, however, as the death of Daphnis undoubtedly is—and it was probably much more effective in the eyes of the poet's contemporaries⁷¹—we must return once more to the *Φαρμακευτρία* for the strongest evidence of Theocritus' power in this direction. In that admirable poem we have the original suggestion of a still more perfect

⁷⁰ iv., 38, 39. Notice even here the gleam of humour in *αἶγες*. "A little dearer than his horse."

⁷¹ Contrast the lugubrious tale of Pyramus and Thisbe with the prevailing tone of the *Midsummer Night's Dream*.

⁷¹ "Le tableau qui termine ces plaintes est un de ceux que les anciens poètes ont le plus affectionnés, mais qui pour nous sont tombés dans l'inexorable lieu commun." Adert, *Théocrite*, p. 47. He alludes to Idyll i., 132, sqq.

masterpiece, the *Oenone* of Tennyson. Both contain the agony of a neglected love—in the Greek, joined with vindictive wrath; in the English, tempered with a sorrow as touching as it is womanly. In both a distinctive form is created by the refrain. But the opening words of *Oenone* are in great part a reminiscence of Theocritus:

O mother Ida,⁸² many-fountained Ida,
 Dear mother Ida, hearken ere I die.
 For now the noon-day quiet holds the hill
 The lizard, with his shadow on the stone⁸³
 Rests like a shadow; and the cicada sleeps.
 The purple flowers droop; the golden bee
 Is lily-cradled; I alone awake.
 My eyes are full of tears, my heart of love;
 My heart is breaking, and my eyes are dim,
 And I am all aweary of my life.

ἦνίδε σιγῇ μὲν πόντος, σιγῶντι δ' ἄηται·
 ἃ δ' ἐμὰ οὐ σιγῇ στέρνων ἐντοσθεν ἀνία,
 ἀλλ' ἐπὶ τήνῃ πᾶσα καταίθομαι, ὅς με τάλαιναν
 ἀντὶ γυναικὸς ἔθηκε κακὰν καὶ ἀπάρθενον ἦμεν.

This is enough to show what the writer might have accomplished, had not the mood been exceptional with him. In fact, although many of the *Idylls* are sufficiently serious, the second and twenty-sixth alone are entirely and terribly in earnest, and relieved by no ray of mirth or humour. In the former we have the language of concentrated passion: in the latter all feeling is resolutely suppressed.

In other places, Theocritus seems almost ashamed of being sentimental. On such occasions he passes by a rapid transition from a pathetic passage or *recherché* expression

⁸² Cf. *Αἶτνα* μάτερ ἐμά, ix. 15.

καθεύδει vii. 22; cited here also as a

⁸³ *ἄνικα* δὴ καὶ σαῦρος ἐν αἱμασιᾶσι

"note" of noonday.

to a light, humorous utterance. Thus, in the dialogue already cited :—

BATTOΣ. αἰαὶ τῷ σκληρῷ μάλα δαίμονος, ὃς με λελόγχει.
 ΚΟΡΥΔΩΝ. θαρσεῖν χρή, φίλε Βάττε· τάχ' αὔριον ἔσσειτ' ἄμεινον...
 BATTOΣ. θαρσέω. βάλλε κάτωθε τὰ μοσχία· τὰς γὰρ ἐλαίας
 τὸν θαλλὸν τρώγοντι τὰ δύσσοα. σίτθ' ὃ λέπαργος.⁸⁴

The tone changes abruptly at the third line. So at the end of Idyll I. :—

ἤνιδε τοι τὸ δέπας· θᾶσαι φίλος ὥς καλὸν ὄσδει·
 Ὀρᾶν πεπλυσθαι νιν ἐπὶ κράναισι δοκησεῖς.
 ὦδ' ἴθι, Κισσαίθα, τὸ δ' ἄμειλγέ νιν· αἱ δὲ χίμαιραι,
 οὐ μὴ σκιρτασεῖτε, μὴ ὃ τράγος ὕμνιν ἀναστή.

Thus, too, it is worth while contrasting the expression (perhaps too poetical for the mouth of so rough a personage as Lacon), εἴρια... ὕπνω μαλακώτερα⁸⁵ with the very rustic utterance immediately following :—

ταὶ δε τραγεῖαι
 ταὶ παρὰ τὴν ὄσδοντι κακώτερον ἢ τὴν περ ὄσδεις.⁸⁶

On these occasions we are made to feel that, sentimental though the poet may have appeared, yet (as in the case of his own Lycidas) γέλως οἱ εἶχετο χεῖλες all the while. For Theocritus, from one point of view, is distinctly a humorist. He delights in making what Thackeray would have called his puppets utter quaint and slightly ridiculous sayings, without apparent consciousness on their part that they are committing themselves. The love-sick swain in Humour. the third Idyll declines to continue his serenade any longer, on the ground of a sudden headache :—

ἀλγέω τὰν κεφαλάν, τὴν δ' οὐ μέλει. οὐκέτ' αἰῶδω,
 κεισεῦμαι δὲ πεσών, καὶ τοὶ λύκοι ὦδέ μ' ἔδονται.

⁸⁴ V. 40, 41, 44, 45.

covered by comparing v. 31-34 with 35-38 and 124-131 with 132-133.

⁸⁵ V. 50, 51.

⁸⁶ Further instances may be dis-

Of this kind is the prayer to Pan,⁸⁷ accompanied by menaces of nettle-stinging in case of neglect on the part of that reverend personage, as well as the παρακλαυσίθυρον of the Spartan damsels—both already cited. But unquestionably the most humorous figure in Theocritus is the Cyclops himself. A considerable change of conception has taken place in this case since the days of Homer. All his savage characteristics have disappeared. Falstaff is in love. Abandoning cannibalism, the Cyclops, always a well-to-do grazier, has now become quite a general favourite among the fair sex. Certainly if it be the Homeric and Euripidean Polyphemus—such as he has been immortalised by Händel's "I rage, I melt, I burn"—who thoughtfully surveys the reflection of his single eye in the water, and proposes to his *innamorata* to allow her to improve his personal appearance by singeing off his superfluous hair in the ἀκάμαρον πῦρ—then one can only say that the softer passion *emollit mores nec sinit esse feros*. But Theocritus has drawn his Cyclops with admirable consistency. All his remarks are conceived in the same tone of naïve bonhomie. One seems to have become acquainted with the burly, simple, puzzle-headed giant, who is longing to present his Undine with the useful gift of four young bears and eleven fawns: the latter (it may be presumed) by way of sustenance for the former. He is quite aware of his personal peculiarities; but surely the nymph must consider the possibilities of cheese all the year round an ample compensation for the trifling drawback of a spouse with one eye and an eyebrow from ear to ear. What the mother of this reformed Caliban must have been, whom he accuses of neglect in pushing his suit, and threatens with his vengeance in consequence, is prudently left to the imagination of the reader.

A collateral evidence of the art of Theocritus is furnished

⁸⁷ vii. 106, sqq.

by the skill with which his mute figures are introduced. Although Galatea *says* absolutely nothing⁸⁸ in either the Art.

sixth or eleventh Idyll, and is not directly brought upon the stage in the latter at all, yet there is such life-like grace and sprightliness in the conception, that we seem to derive from this slight portraiture almost as definite an impression as from the detailed self-revelations of Nausicaa in the Odyssey. Pan, in the same way, as has been noticed, is left to the imagination. Nowhere (unless the third Epigram is reckoned an exception) does he appear in person; and the qualities with which we invest him are merely inferences from the addresses of his worshippers. Again, in the *Adoniazusæ*, the side-sketch of the child (the only genuine Theocritean baby in the Idylls—Heracles and his little brother being traditional—) is perfect in its way; and we feel that the awkward maid-of-all-work, whose shadowy figure lurks in the background of the scene, differs in no respect from her class all the world over.⁸⁹

The best pieces of Theocritus are distinguished by so much compactness, strength, and self-restraint both in the amount of ornament and length of development, that the absence of these qualities in several ascribed to him forms a just ground of suspicion. In some cases, no doubt, the want of *callida junctura* is designed to produce a particular effect. The reaper's song in the tenth Idyll is exceedingly disjointed. The line⁹⁰

μήπω ἐπὶ γλώσσας ἄκρας ὀλοφυγγόνα φύσω

is in its place unconnected and awkward. These are obviously intended to be specimens of the rustic muse. But the elegiacs in Idyll VIII. are both introduced and dismissed

⁸⁸ One word is indeed ascribed to her—*θυρίῳτα τὸν αἰετόλον ἄνδρα* *καλεῖσα*, vi. 7.

quette, whose elaborately carved portrait adorns the *εἰσσύβιον* in Idyll I.

⁹⁰ ix. 30.

⁸⁹ To these may be added the co-

with an inartistic length of explanation, which adds greatly to the doubtfulness of the whole in its present shape. Nor does one feel inclined to commend the framework of commonplaces in which such a poem as the *Cyclops* is set. In this case Mrs. Browning seems to have felt the awkwardness of the conclusion as it stands; the last two lines being quietly omitted in her translation. The form of a general moral sentiment, followed by a particular instance illustrating the rule (such as introduces the Hylas and the 'Αλιείς), reappears in several of Juvenal's Satires, and in our own days Mr. Tennyson has thought the opening of the former worthy of imitation in his *Godiva*.

In some quarters Theocritus has been awarded the praise of exceptional modesty. Personally he may Self-consciousness. deserve it; but it is indisputable that the bucolic singers to whom he introduces us give themselves full credit for their achievements. In the first Idyll, after a preliminary interchange of compliments, one of the parties announces,

Θύρσις δδ' ὡς Αἴτνας, καὶ Θύρσιδος ἀδέα φωνά.

In the same way Corydon informs us (iv. 30),

ἐγὼ δέ τις εἰμὶ μελιγκτάς,
κεῦ μὲν τὰ Γλαύκας ἀγκρονοῦμαι, εὐ δὲ τὰ Πύρρῳ.

In the eighth, neither of the little combatants sees any merit in the other,

ΔΑΦΝΙΣ. Φαμί τυ νικασεῖν, ὅσσον θέλω, αὐτὸς ἀεῖδων.
ΜΕΝΑΑΚΑΣ. Οὔποτε νικασεῖς μ', οὐδ' εἴ τι πάθοις τύγ' ἀεῖδων.

And the contagion is caught even by Polyphemus:

συρίσδεν δ' ὡς οὔτις ἐπίσταμαι ὦδε Κυκλώπων.⁹¹

But, strange to say, one of the worst offenders (if offence

⁹¹ xi. 38.

it be) is Simichidas, under whose mask Theocritus himself is supposed to speak :—

καὶ γὰρ ἐγὼ Μοισᾶν καπυρὸν στόμα, κῆμὲ λέγοντι
πάντες ἀοιδὸν ἄριστον· ἐγὼ δὲ τις οὐ ταχυπειθής.⁹²

Then follow some expressions of self-depreciation, withdrawn immediately by the words ὥς ἐφάμαν ἐπίταδες. Whereupon Lycidas proceeds to congratulate the poet upon his modesty and candour:

ἔσσι
πᾶν ἐπ' ἀλαθείᾳ πεπλασμένον ἐκ Διὸς ἔρνος.⁹³

So far we have seen the self-consciousness of the poet in a playful and inoffensive form. It assumes a less pleasing aspect in the two pieces, which, of the whole collection, will I think be read with the least pleasure. I mean the two ἐγκώμια—XVI. and XVII.—written, if not to order, at least from motives very different from poetical inspiration. In the former, the doctrine that immortality can be conferred by the *vates sacer* alone is dwelt upon with wearisome detail and illustration. If there be no other instance in which a Greek thought plagiarised by a Roman poet has gained immeasurably in beauty and force from its new dress, the present case furnishes at least one. The ode of Horace has dignity, condensation, and grace—even a certain amount of intensity. On turning to Theocritus, we seem to feel the temperature suddenly lowered. In

⁹² vii. 37, 38.

⁹³ It thus, I think, appears how unnecessary an alteration Fritzsche has introduced into Idyll ix. 8.

ἀδὸ μὲν ἂ μύσχος γαρύσσεται, ἀδὸ δὲ χά βοῦς,
ἀδὸ δὲ χά σὺριγὲ χά βωκόλος, ἀδὸ δὲ κ ἡ γ ὡ ν.

The last three words ("aus Conjectur") appear in his text ἀδὸ δὲ κ ἡ γ ὡ, by

which the passage is deprived of its most characteristic touch. Three natural objects are mentioned: then the speaker. So in the same poem we read

τέττιξ μὲν τέττιγι φίλος, μύρμακι δὲ μύρμαξ,
ἴρηκες δ' ἴρηξιν, ἐμὴν δ' ἂ μοῖσα καὶ ψάδᾳ.

(Ziegler *mire*, ἐμὴν δὲ μοῖσα καὶ ψάδᾳ).

this passage he is for once cold, diffuse, one might almost say ἀρτίδακρυς. There is, however, abundant excuse in the circumstances under which the sixteenth Idyll (if so it may be called) was written. It seems certain from the opening lines, that, on leaving Cos, Theocritus tempted fortune in Syracuse with small pecuniary success for some time. Torn by the contending forces of Carthaginians, Mamertines, and Syracusans, his native Sicily offered in the year 280, B. C., anything but a favourable sphere for a young author without independent means. Several poems were produced without satisfactory result.

αἱ δὲ (ἡμετέραι χάριτες) σκυζόμεναι γυμνοῖς ποσὶν οἶκαδ' ἴασι,
πολλὰ με τωθάξουσιν, ὅτ' ἀλιθίαν ὁδὸν ἤρθον.⁹⁴

If the author is to be credited, the deafness of the Syracusans to his strains, of which he complains at such length, was due, not to the noise of battle ringing through the island, but to the stinginess of an inappreciative generation. Still the querulous tone of the *Hiero*, and the want of independence it reveals, sink Theocritus somewhat in our estimation. Even the encomium itself, good as it is when once his imagination has caught fire, is in great part nullified and retracted by the undignified threat with which it concludes—of migrating to Alexandria in case of the failure of this application. The whole is quite as much an attack by implication on Hiero's meanness as a compliment to his military talents. The forced eulogy and half-epic colouring of the prophecy (ll. 73, sqq.) seem strangely out of place when contrasted with the Hesiodic plaintiveness of the rest of the composition. We can hardly wonder that a petition thus presented should have failed of its object. It might have been better for the author's reputation had this early work been omitted from the collection by a more

⁹⁴ xvi. 8, 9.

prudent editor. Nor is it easy to become enthusiastic about the *ἰγκώμιον εἰς Πτολεμαῖον*, vastly superior as it is to its predecessor. Notwithstanding its sustained energy and buoyancy, the poem savours a little of a professional and mercenary taste all through, which one cannot help comparing unfavourably with the exquisite tact of the Augustan court poets on similar occasions.

*Μουσάων ὑποφῆται δειδοντι Πτολεμαῖον
ἀντ' εὐαργεσίας.*

This is the text of the whole. It only remained to specify the sums received. What is still worse is the minutely detailed account of the Egyptian kingdom and its resources. It is almost as if the laureate had been given instructions to immortalise in verse the royal breviarium. Formal allusions to Zeus shut in the poem at either end. None produces so strong an impression of having been consciously laid out beforehand. First come the king's genealogy and birth; then the fertility of the land, with statistics geographical, military, and naval. The personal character of the patron, with personal thanksgiving on the part of the client, follow in the order of relative importance.

In connexion with Theocritus' removal to Alexandria, which gave birth to Idyll XVII., it is worth remarking how completely free he seems to have been from political predilections. The comparative autonomy of the Greek cities in the west and the absolutism of Egypt were alike to him. In truth he could not afford to have strong political views, even supposing such to have existed at the time beyond the limits of Greece proper. Other causes however conduced to this singular phenomenon of a non-political Greek poet. A general and premature senility had overtaken the national life, the religion, and to a great degree the literature of Hellas also. The desire for autonomy, once so deeply rooted in the heart

Absence of a
political sense.

of every Greek, had been again and again disappointed, and was now represented by the semi-barbarous Aetolian and ineffective Achæan leagues. From a political point of view, the sense of national life was becoming rapidly extinct. Disunion, pettiness, and subjection to the stranger seemed destined to be the future lot of Hellas. What wonder then that the practical creed of the Alexandrian school on the question of forms of government should be that of Pope, and that Theocritus should turn from so cheerless a prospect to describing, for the benefit of his new public among the sandhills of the Delta, the types of character, the scenes of country life, and all the wealth of sights and sounds of his native island of Sicily?

From another point of view, however, Theocritus appears Exclusive Hellenism. as intensely national as the Jews of the dispersion—as deficient in cosmopolitanism as the narrowest Greek of the days of Pericles. If we except the single allusion to Carthage, and the enumeration of the non-Greek provinces of Ptolemy's kingdom, it is hardly too much to say that no other nation than his own exists for him. The Egyptians are dismissed with a single contemptuous sneer.⁹⁵ The native Sikels are treated as non-existent—unless indeed Polyphemus and his tribe be supposed aboriginals of the island. The city on the Tiber, which occupied Messana at the invitation of the Mamertines before Theocritus quitted Syracuse, and probably within the poet's lifetime conquered the greater part of Sicily, as well as Corsica and Sardinia, is never once alluded to. His patron, Ptolemy Philadelphus, had increased the domain of Greek literature by having translations executed of the sacred annals of Egypt and Judæa; and the Jewish colony at Alexandria was at this time no insignificant phenomenon.⁹⁶ But Theocritus never once

⁹⁵ xv. 48.

⁹⁶ The similarity of sentiment in xxiv.

16, to a well-known passage of Isaiah, is remarkable :

steps outside the circle of Hellenic life and associations.⁹⁷ This is of course no more than can be said of most Greek poets; and if a further explanation be needed, it may be found in the very form and character of the Idylls. Each tiny scene within its narrow limits is complete in itself. The poet is under no obligation to bring facts disagreeable in themselves, or alien to his subject, into prominence. On the contrary, a certain ideality in this respect is part of the secret of his success. Yet the changing circumstances of the nation make this exclusiveness significant enough in the case of so late an author.

Alexandria was clearly not the field for a man of this stamp. He could not feel at home in regions which suited the versifier Callimachus admirably well. The "vein of poetry of purest ore" which he had discovered was not to be worked in the dusty capital of Egypt, amidst the factitious unrealities of pedants and courtiers, but on the sunny mountains in sight of the sea of Sicily. Here we

ἴσται δὲ τοῦτ' ἄμαρ, ἀπηρία νεβρὸν ἐν εὐνῇ
καρχαρόδων σίνεσθαι ἰδὼν λύκος οὐκ ἐβέλησεν.

But it can hardly be more than a mere coincidence. The Prophets had probably not appeared in their Greek dress as early as Theocritus' visit to Alexandria.

⁹⁷ With the genius of the Semitic race indeed he had absolutely nothing in common. The two types of the sublime—"the starry heavens without, the moral law within"—were both appreciable and appreciated (the latter, at least, to its utmost extent) by the Hebrew poet-prophets; and not only as distinct and to some extent mutually exclusive feelings, but as harmonious and connected. But the sense of the sublime is wanting in Theocritus. Of both types he seems equally uncon-

scious—whether this be due to a natural defect, or the narrow range of his extant compositions. The delineation of external nature is nevertheless his *forte*. The truth is that the Semitic sense of the sublime and the Greek sense of the beautiful were not so much opposed as complementary. Though possibly neither could at that time appreciate the standpoint of the other, we have only to turn to our own Wordsworth to find them both combined in their happiest forms. In him indeed the "stern lawgiver" of whose pervasive presence the Hebrew was always—the Greek but seldom—conscious, wears "the Godhead's most benignant grace," and becomes reconcilable with that aspect of the world on which the Sicilian poet loved to dwell.

have him at his best; and, small as is the space which the purely pastoral Idylls occupy in his little volume, it is they nevertheless which are connected most definitely and enduringly with the author's name. Critics have vied with one another in praising the sense of naturalness and truth, the breeziness, the inimitable effect of life in the open air and under the free heaven, which these half-dramatic pieces convey. So exquisitely painted is the *mise en scène* of sunshine and shade, whispering trees and brooks whose "quiet tune" lulls the shepherd to sleep at the drowsy hour of noon, that we read and wish we could transport ourselves to the spot, to make the acquaintance of the graceful Daphnis, exchange pleasantries with the outspoken Battus, and catch a glimpse of the σύνοππος κόρη flitting behind the bushes. Simplicity and ornament in the most perfect proportion—the art that most thoroughly conceals itself—characterise the Idylls. A man of *genius* Theocritus may not have been—and indeed the word sounds somewhat strange in juxtaposition with his name—but the poet, who, closing the long series of illustrious Greek masters of song in a degenerate age, has yet preserved his popularity undiminished down to the present day: the poet who furnished inspiration to Catullus, Virgil, Ovid, Horace, Propertius, Tibullus, and Calpurnius; to Petrarch, Milton, and Pope; to Racan and Segrais; to Opitz, Gessner, and Hebel; to Elizabeth Barrett Browning, and Alfred Tennyson, must have at least possessed *talent* of no mean order. He has earned a higher praise than that of "Der Blumen-singende, Honig-lallende, freundlich-winkende Theokrit."

HASTINGS CROSSLEY.

NOTULAE.

SOPHOCLES, OEDIPUS REX, 772.

Τῷ γὰρ ἂν καὶ μείζονι
λέξαιμι' ἂν ἢ σοὶ διὰ τύχης τοιαῦδ' ἰών ;

THE commentators take *μείζονι* adjectivally. "For whom have I more honorable to whom I should speak in such a crisis of my fortunes?" Campbell. "Est igitur *μείζων* praestantior." Wunder. Is not *μείζονι* rather to be taken adverbially = *μᾶλλον* by a not uncommon idiom? "To whom *rather* (in a higher degree) than to you should I tell the tale?" So Horace Carm. iii. 20, 7,

Grande certamen tibi praeda cedat
major an illi.

where *major* = *magis*, as Maclean correctly explains against the emendation 'illa.'

THUCYDIDES, III. 33.

Οὐ γὰρ ἦν ὁ διαλύσων οὔτε λόγος ἐχυρὸς οὔτε ὄρκος φοβερός, κρείσσους δὲ ὄντες ἅπαντες λογισμῷ εἰς τὸ ἀνέλπιστον τοῦ βεβαίου μὴ παθεῖν μᾶλλον προεσκόπουν ἢ πιστεῦσαι ἐδύναντο.

The chief difficulty appears to lie in *κρείσσους*, yet a satisfactory sense may be elicited from the passage if this word can mean as Dobree explains "Argumentis et jure-jurando minime moti, Angl. steeled against," understanding *λόγων καὶ ὄρκων* after *κρείσσους*. This interpretation is re-

jected, rather arbitrarily, by Arnold, who denies that the genitives can be so understood, and thinks it far from certain that *κρείσσους* can bear the sense Dobree gives it. But in a well-known passage of the Politics (viii. (v) 12), where Aristotle refers to the Platonic number, we find *κρείσσους* used in the exact sense which Dobree gives it in the Thucydidean passage; *ὥς τῆς φύσεώς ποτε φουούσης φαύλους καὶ κρείττους τῆς παιδείας*. Nature at times, according to Plato, produces individuals beyond the influence of, incapable of being influenced by, his education. Adopting, then, this view of the meaning of *κρείσσους*, and understanding from the previous clause *λόγων καὶ ὀρκων* by an ellipse which appears by no means harsh for Thucydides, we may translate, "For neither was there promise trustworthy enough, nor oath terrible enough to put an end to their contention, but all being incapable of being influenced by such matters (steemed against, superior to, such influences) from a consideration of the utter hopelessness of security, rather looked out for their own safety than were capable of confidence."

PLATO, PHAEDO, XXXV.

Κέβης δὲ καὶ Συμμίασ συμκρὸν πρὸς ἀλλήλω διελεγέσθην· *συμκρὸν* should be taken = *submissa voce*, 'were speaking in a low tone;' cf. Homer, Il. xxiv. 170, *τυτθὸν φθεγξαμένη*.

LUCRETIIUS, II. 1.

Suave mari magno turbantibus aequora ventis
E terra magnum alterius spectare laborem;

Mr. Munro translates "It is sweet, when on the great sea the winds trouble its waters, to behold from land another's deep distress." The epithet 'magno' appears much more forcible and picturesque if we translate the 'stormy sea'—cf. Sallust, Jugurtha, c. 78, *nam ubi mare magnum esse et saevire ventis coepit*. The addition 'turbantibus aequora ventis' seems to bear out this view.

HORACE, CARM. I. XXVII. 19.

Quanta laborabas Charybdi
Digne puer meliore flamma !

The incongruity of metaphor generally objected to in this passage disappears, if we suppose that Horace adopted the later legend which makes Charybdis not a whirlpool, but a monster ; cf. Cicero Phil. ii. 27, Charybdin dico? quæ si fuit, fuit animal unum. "What an ogress has thee in her clutches !" In this connexion 'flamma' is scarcely felt to be a metaphor.

HORACE, CARM. I. 32, 15,

O laborum
Dulce lenimen mihi cumque salve
Rite vocanti.

L. Mueller (Teubner edit. 1869) has introduced into the text Lachmann's conjecture *medicumque*. Adopting the view that *cumque* in the MSS. represents the last syllable of an adjective with *que*, perhaps one might suggest *MELICUMQUE* as at least somewhat less prosaic than *medicum*. Lucretius had used *melicus*, v. 334,

Organici melicos peperere sonores.

JUVENAL, XIII. 147 seq.

Confer et hos veteris qui tollunt grandia templi
Pocula adorandæ robiginis et populorum
Dona vel antiquo positas a rege coronas.
Haec ibi si non sunt minor exstat sacrilegus qui
Radat inaurati femur Herculis et faciem ipsam
Neptuni, qui bracteolam de Castore ducat.
An dubitet solitus totum conflare Tonantem ?

The difficulty of this passage is well known. Juvenal appears to call a thief, in the habit of melting down an

entire statue of Jupiter, a minor sacrilegus. Maclean (ad loc.) writes:—"I can make no sense out of this line (An dubitet solitus &c.), as it stands. He (Juvenal) says, Compare (O Calvinus) with your man those who carry off great venerable cups from temples. If these are not to be found, then comes a thief in a lower way, to scrape the gilding from the statues. Would he hesitate, seeing it is his wont to melt down an entire Jove? There is no sense in this that I can see." Stolidus has been proposed for solitus, and solus, which is found in two MSS., yet the text appears defensible. The commentators have been led astray by taking minor as an attributive, and thus regarding the minor sacrilegus as different from qui tollunt grandia pocula of line 146; and the difficulty of the passage appears to be removed if we take minor as a *predicate*, and understand the minor sacrilegus to be one of the greater thieves, who, not finding any ancient cups or gifts of nations (haec ibi si non sunt), so turns out on this occasion a sacrilegus on a smaller scale, *in that he (qui radat)* only scratches the gold off a statue; nor does he hesitate to do this, for he is accustomed, when he has a chance, to melt down the Thunderer himself. There is no difficulty in the singular minor after hos above; he is an individual thief out of the class qui tollunt grandia templi pocula; he would do this on the present occasion too, but haec ibi non sunt, so he perforce exstat minor sacrilegus.

JUVENAL, XIII. 157.

Haec quota pars scelerum quae custos Ponticus urbis
 Usque a Lucifero donec lux occidat, audit?
 Humani generis mores tibi nosse volenti
 Sufficit una domus.

Surely, here 'domus' is not, as it is usually explained, the *private house* of Ponticus; it is the police court where

he sits from morning till night; cf. the use of οἶκημα Demosth. Meidias, § 542. ἤδη δὲ ἐσπέρας οὔσης καὶ σκοτούς ἔρχεται Μειδίας οὔροσι πρὸς τὸ τῶν ἀρχόντων οἶκημα (office) καὶ καταλαμβάνει τοὺς ἄρχοντας ἐξιόντας κ. τ. λ.

JUVENAL, XIV. 24.

Quem mire afficiunt inscripta ergastula, carcer
Rusticus. Expectas ut non sit adultera Largae
Filia, &c.

It is surprising that, simply for the reason that Horace has the combination 'Rusticus expectat' (Ep. I. II. 42), G. A. Simcox, in his edition of Juvenal, should punctuate

Quem mire afficiunt inscripta ergastula, carcer?
Rusticus expectas ut, &c.

The ergastula, being always in the country, are *precisely* defined by the words 'carcer *rusticus*;' carcer *by itself*, whether it is to be regarded as in apposition to 'inscripta ergastula' or an addition by asyndeton, is most lame and purposeless.

T. J. B. BRADY.

VIRG., AEN. I. 122 :

APPARENT RARI NANTES IN GURGITE VASTO
ARMA VIRUM TABULAEQUE ET TROIA GAZA PER UNDA.

“ *GURGES* propre de vortice, s. de mari vel flumine profundo et in orbem acto, dicitur.”—Forbiger. “*Gurgite vasto*: c’est le trou aux eaux tourbillonnantes (rapidus vortex) où sombre le navire des Lydiens.”—Jal, Virg. Nauticus, p. 342. “*Gurges* (ἄμπωτις, δίνη), locus in flumine profundus, in quo aqua congeritur et circum vertitur. Omnis aquarum congeries dicitur gurgis.” Rob. Stephan. in Thesaur., adding with special reference to our text: “Pro ipso maris periculo et veluti Syrte quadam aut Scylla.” “*Gurges* (ἄμπωτις, δίνη), Locus in flumine profundus, in quo aqua congeritur et circum vertitur,” Gesner in Thesaur., adding with special reference to our text: “Pro ipso maris periculo et veluti Syrte quadam aut Scylla,” and then proceeding: “Non improbabilis est sententia Io. Meursii, mantissa ad libr. de luxu Rom. c. 12, derivantis hoc totum nomen a Gr. γοργών. Sunt enim γοργόνες ap. Suidam φοβεροί εἰς γαστριμαργίαν. Fuerit itaque γοργών gurgis primo vorax, ac deinde per metaphoram locus in mari vel flumine absorbens omnia.” “*Vortex* und *gurgis* sind die sich im kreis drehenden wasserstellen, welche ein bewegtes wasser voraussetzen Ferner stellt *vortex*, wie der Wirbel, das kreisende wasser in horizontaler richtung dar, in so fern das wasser sich bloss im kreise dreht und das, was darauf schwimmt, am weiterfliessen hindert; *gurgis* aber, wie der

Strudel, in perpendicularer richtung, in so fern er das, was in seinen bereich kömmt, mit sich in die tiefe zu ziehen sucht." Doederl. Synon. "*Gurges*, δίνη: proprie locus est in flumine profundus, in quo aqua vertitur. Sed generaliter de omni aquarum congerie dicitur et de ipso etiam mari." Facciolati, in Lexic. "*Gurges*, a gulf of water in circular motion, which absorbs things near it, a whirlpool." Scheller (translated by Riddle) in voce *Gurges*. "*Gurges*, χώνη ποταμῶν. Βάθος, C. κλύδων, C. ἄμπωσις, C. gurgites, εἰλιγγίς." Cyrilli, Philoxeni, aliorumque veterum glossaria, a Car. Labbaeo collecta, in voce *Gurges*. "Δίνη, vortex, gurgites." Henr. Stephan. (Thesaur. edited by Hase and Dindorf, Paris, 1833) in voce δίνη. "Gurgi-t fassen wir als weiterbildung von einem nominalstamme *gurgo-* (nom. *gurgus* oder *gurgum*) mit der abstracten bedeutung *das sich im kreise herumdrehend*.... Die wurzel ist gurgriech. γυρ in γυρός (*rund*), γῦρος, ὁ (*kreis*). vergl. Benfey wl. 2, 291. Das suffix -t bildet hier aus dem nominalstamme (*gurgo-*) ein nomen actionis (folglich *strudel als sich drehender*, wie *vertex* von wrz. *vart*, *circumagi*)." Walter, Die Lateinischen Nomina auf -es itis (Kuhn, Zeitschr. f. vgl. sprachf. vol. 10, p. 198). "GORGO, Ital. Provenz. Altfranz. *gorc*, *gort*, Neuf Franz. *gour* strudel; desgl. Ital. Span. Provenz. *gorra*, fr. *gorge*, It. *gorgia* strudel, schlund, gurgel; von GURGES dem nur die erste bedeutung zukommt." Diez, Etymol. Wörterb. der Romanisch. Sprachen.

That this is to confound two words expressive of essentially different notions, let the following examples show: Ovid. Met. 2. 527:

"At vos si laesae contemptus tangit alumnae,
gurgite caeruleo septem prohibete Triones."

The blue gorges in which Juno begs Oceanus and Tethys not to allow the Triones to dip was most assuredly no vortex. Ovid. Met. 14. 51:

"Parvus erat gurgēs, curvos sinuatus in arcus,
grata quies Scyllae; quo se referebat ab aestu
et maris et caeli, medio cum plurimus orbe
sol erat, et minimas a vertice fecerat umbras.
Hunc dea (Circe) praeveniat, portentiferisque venenis
inquinat."

The quiet little gurgēs, which afforded Scylla a cooler bath at noon than the Sicilian sea, was most assuredly no whirlpool, no vortex. Lucan. 6. 361:

"Purus in occasus, parvi sed gurgitis, Aeas
Ionio fluit inde mari."

The little gurgēs with which the river Aeas flowed pure into the Ionian sea was most assuredly any thing in the world but a vortex. Sil. 1. 196:

"Terminus huic roseos omnis Lagaenus ad ortus
septeno impellens tumefactum gurgite pontum."

The sevenfold gurgēs with which the Lagaean river impelled the swollen sea was most assuredly not a sevenfold vortex. Nor a sevenfold vortex the sevenfold gurgēs of the summer Nile, which Nereus drinks, Claudian. in Rufin. 1, 183:

....."Nereus,
..... undantem quamvis hinc hauriat Istrum,
hinc bibat aestivum septeno gurgite Nilum,
par semper similisque meat."

Nor a vortex the gurgēs under which Vulturinus draws so much sand along, Ovid, Met. 15, 714:

....."multamque trahens sub gurgite arenam
Vulturinus."

Nor a vortex the pure gurgēs with which the same river aspires to rival the Liris in purity, Stat. Silv. 4. 3. 92:

"Sed talis ferar, ut nitente cursu
tranquillum mare proximumque possim
puro gurgite provocare Lirim."

r a vortex the Castalian gurgles from which the Phœ-
 in afflatus emanates, Claud. Epigr. 31 :

“Quicquid Castalio de gurgite Phoebus anhelat,
 quicquid fatidico mugit cortina recessu,
 carmina sunt.”

r a vortex the altus gurgles with which the Danube and
 Rhine lord it over their neighbour rivers, Claud. Bell.
 tic. 329 :

“Sublimis in Arcton
 prominet Hercyniæ confinis Rhaetia silvæ,
 quæ se Danubii jactat Rhenique parentem,
 utraque Romuleo prætendens flumina regno,
 primo fonte breves, alto mox gurgite regnant,
 et fluvios cogunt unda coeunte minores
 in nomen transire suum.”

r a vortex the gurgles of the Nile, out of which the
 e god raises his weeping visage, Claud. Epist., 2. 56 :

“Audiat hæc commune solum, longæque carinis
 nota Pharos, flentemque attollens gurgite vultum
 nostra gemat Nilus numerosis funera ripis.”

r a vortex the gurgles with which a flooded river over-
 nes the resistance of the dykes, Aen. 2. 496 :

“Non sic, aggeribus ruptis cum spumeus amnis
 Exiit oppositasque evicit gurgite moles,
 Fertur in arva furens cumulo, camposque per omnes
 Cum stabulis armenta trahit.”

r a vortex the enclosed gurgles of the port in which ships
 or safe from the troubles and terrors of the deep, Sil.
 178 :

“Considunt portu, et securæ gurgite clauso
 stant puppes, positusque labor terrorque profundi.”

r a vortex the gurgles navigated against its will by the
 t navigator, Propert., 1. 17. 13 :

"Ah pereat quicunque rates et vela paravit
primus, et invito gurgite fecit iter."

Nor a vortex the easy gorges with which Neptune escorts
the fleet of Stilicho on its way to Corinth, Claudian. 4 Con-
sul. Honor. 462 :

"Servaturasque Corinthum
prosequitur facili Neptunus gurgite classes."

Nor a vortex the high gorges from which Scipio's fleet
has a view of the Alps, Sil. 15. 166 :

"Hinc gurgite ab alto
tellurem procul irrumpentem in sidera cernunt,
Aerias Alpes."

Nor a vortex the gorges on which Aeneas's fleet is borne
swiftly onward toward port by a fair wind, Aen. 5. 32 :

"Petunt portus et vela secundi
intendunt zephyri. Fertur cita gurgite classis ;
et tandem laeti notae advertuntur arenae."

Nor a vortex the curved gorges on which Aeneas and his
companions are lifted up to the sky, only to descend to the
lowest *manes* when it is withdrawn from under them, Aen.
3. 564 :

"Tollimur in caelum curvato gurgite, et idem
subducta ad *manes* imos desedimus unda."

Nor a vortex the Carpathian gorges in which blue Proteus
dwells, Georg. 4. 387 :

"Est in Carpathio Neptuni gurgite vates,
caeruleus Proteus, magnum qui piscibus aequor
et juncto bipedum curru metitur equorum."

Nor a vortex the Iberian gorges in which Phoebus dips his
weary horses at decline of day, Aen. 11. 913 :

"Ni roseus fessos jam gurgite Phoebus Ibero
tingat equos, noctemque die labente reducat."

or a vortex the black gorges of that listless, still-standing sea, where there are neither winds nor waves nor kindly Gemini, and death's sole ferryman rows countless peoples across to the realms of Proserpine, Senec. Herc. ir. 549:

“Vidisti Siculae regna Proserpinae?
 Illic nulla Noto, nulla Favonio
 consurgunt tumidis fluctibus aequora.
 Non illic geminum Tyndaridae genus
 succurrunt timidis sidera navibus.
 Stat nigro pelagus gurgite languidum;
 et cum Mors avidis pallida dentibus
 gentes innumeras Manibus intulit,
 uno tot populi remige transeunt.”

or a vortex that gorges on the surface of which the oars of the Argonauts are kept in time by the music of Orpheus, Val. Flacc. 1. 470:

“Nec vero Odrisius transtris impenditur Orpheus,
 aut pontum remo subigit, sed carmine tonsas
 ire docet, summo passim ne gurgite pugnent.”

or a vortex the gorges (viz. of the river Sicoris) by which the camp of Caesar is separated from the camp of Pompey, Tac. Ann. 4. 11:

“Colle tumet modico, lenique excrevit in altum
 pingue solum tumulo; super hunc fundata vetusta
 surgit Ilerda manu: placidis praelabatur undis
 Hesperios inter Sicoris non ultimus amnes,
 saxeus ingenti quem pons amplectitur arcu,
 hibernas passurus aquas, at proxima rupes
 signa tenet Magni: nec Caesar colle minore
 castra levat; medius dirimit tentoria gurgis.”

or a vortex either the gorges which the smaller river Arga mixes with the gorges of the larger river Iberus, or

the gorges which the larger Iberus mixes with the gorges of the smaller Cinga, Lucan. 4. 19 :

“Explicat hinc tellus campos effusa patentes,
vix oculo prendente modum, camposque coercet
Cinga rapax, vetitus fluctus et littora cursu
Oceani pepulisse suo, nam gurgite misto
qui praestat terris, aufert tibi nomen Iberus.”

Nor a vortex the gorges in which there will be a fish, however little you expect that there will, Ovid. *Ar. Am.* 3. 425:

“Casus ubique valet; semper tibi pendeat hamus;
Quo minime credas gurgite piscis erit.”

Nor a vortex the gorges in which Arethusa was swimming when she heard the voice of Alpheus calling to her from below, Ovid. *Met.* 5. 595 :

“Nudaque mergor aquis; quas dum ferioque trahoque,
mille modis labens, excussaue brachia jacto,
nescio quod medio sensi sub gurgite murmur,
territaque insisto propioris margine ripae:
‘Quo properas, Arethusa?’ suis Alpheus ab undis;
‘quo properas?’ iterum rauco mihi dixerat ore.”

Nor a vortex the gorges with which the sea alternately floods, and leaves bare, the shore, *Aen.* 11. 624 :

“Qualis ubi alterno procurrrens gurgite pontus
nunc ruit ad terras, scopulosque superjacet unda
spumeus, extremamque sinu perfundit arenam;
nunc rapidus retro, atque aestu revoluta resorbens
saxa, fugit, littusque vado labente relinquit.”

Nor a vortex the shining gorges with which the clear and blue Ticinus flows so softly and quietly as to induce sleep, and almost seem not to flow at all, *Sil.* 4. 81 :

“Caeruleas Ticinus aquas et stagna vadoso
perspicuus servat turbare nescia fundo,
ac nitidum viridi lente trahit amne liquorem.”

vix credas labi; ripis tam mitis opacis
argutos inter volucrum certamine cantus,
somniaferam ducit lucenti gurgite lympham."

Nor a vortex the in-flowing gorges which keeps the tank constantly cold, Colum. de r. r. 8. 17: "Sed utcunque fabricatum est, si semper influente gurgite riget, habere debet specus juxta solum, eorumque alios simplices et rectos, quo secedant squamosi greges, alios in cochleam retortos." Nor a vortex the gorges—the, no less than the gorges of our text, vastus gorges—on which not merely one ship's debris, but the whole fleet of Aeneas, is tossed about, 3. 196:

"Continuo venti volvunt mare, magnaue surgunt
aequora, dispersi jactamur gurgite vasto."

Nor vortices the tanti gurgites swallowed by Charybdis, itself a vortex. Cicer. Harusp. Resp. 27: "Quam denique tam immanem Charybdim poetae fingendo exprimere poterunt quae tantos exhaurire gurgites posset, quantas iste [Clodius] Byzantium Brogitarorumque praedas exorbuit?"

The first conclusion deducible from these examples is that for the sake of which I have been at the pains to seek them out, viz. that gorges not being equivalent to vortex in any one of them, is in all probability not equivalent to vortex in our text, and the second conclusion is that whatever meaning is common to gorges in all these examples will very probably be found in the gorges of our text. Now the meaning common to gorges in all these examples is *water in quantity, body of water, flood* (abstractedly from all notion of overflow). The blue gorges in which Juno begs Oceanus and Tethys not to allow the Triones to dip is the blue water of the ocean, i. e. the blue ocean itself. The little gorges to which Scylla used to retire at noon, for the sake of quiet and a cool bath, was a stream, water, serpentine or fountain ("fons," Servius), just deep enough to

bathe in. The little gorges with which the Aeas flowed pure into the Ionian sea was the clear but slender stream of the Aeas. The sevenfold gorge with which the Lagaeon river impelled the swollen sea, no less than the Nile's sevenfold gorge which Nereus drinks, is the seven deep and broad waters, the seven deep and broad branches by which the Nile discharges itself into the Mediterranean. The gorges of the Vulturnus, under which so much sand is dragged along, no less than the pure gorge with which that river aspires to rival the Liris in purity, is the stream of the Vulturnus. The Castalian gorge from which the Phoebean afflatus emanates is the Castalian spring, fountain or stream. The altus gorge with which the Danube and the Rhine lord it over their neighbour rivers is the deep and full stream of those rivers. The gorges of the Nile, out of which the Nile god raises his weeping visage, is the Nile stream or river. The gorge with which the flooded river overcomes the resistance of the dykes is the rushing water of the flood. The enclosed gorge of the port in which the ships moor safe and forget the labors and terrors of the deep is the tranquil sea-water within the mole. The gorge navigated against its will by the first navigator is the difficult and dangerous water of the deep, wide and rolling sea. The easy gorge with which Neptune escorts the fleet of Stilicho towards Corinth is the water of the Ionian sea, with a fair wind blowing. The high gorge from which Scipio's fleet has a view of the Alps is the water of the high sea between Italy and Spain. The gorge on which Aeneas's fleet is borne swiftly onward toward port by a fair wind is the water of the sea on which Aeneas's fleet is sailing. The curved gorge on which Aeneas's fleet is raised to the sky, only to be lowered to the Manes by the withdrawal of the same gorge from beneath it, is the alternately swelling and subsiding water of the sea on which Aeneas's fleet is sailing. The Carpathian

gorges in which blue Proteus dwells is the water of the Carpathian sea. The Iberian gorges in which rosy Phoebus dips his tired horses at decline of day is the water of the Iberian sea. The black gorges of that listless, still-standing sea, across which death's sole ferryman rows countless peoples to the realms of Proserpine, is the black water of the Styx. The gorges on the surface of which the oars of the Argonauts are kept in time by the music of Orpheus is the water of the sea on which the Argonauts are rowing. The gorges of the Sicoris, by which the camp of Caesar is separated from that of Pompey, is the stream, or water, of the Sicoris. The gorges of the Cinga, which mixes with the gorges of the Iberus, is the stream, or water, of the Cinga, and the gorges of the Iberus, which mixes with the gorges of the Cinga, is the stream or water of the Iberus. The gorges in which there will be a fish, however little you may expect there will, is any water, no matter whether sea, lake, river, spring or pond; as if the poet had said: there is no water in which there may not be a fish. The gorges in which Arethusa was swimming when she heard the voice of Alpheus calling to her from below was the water of the sea in which Arethusa was swimming. The gorges with which the sea alternately dashes forward over the rocks on the shore, and retreats and leaves them bare, is the fluctuating sea-water. The shining gorges with which the clear and blue Ticinus flows so softly and quietly as to induce sleep, and almost seem not to flow at all, is the shining stream of the clear and blue Ticinus. The in-flowing gorges which keeps the tank constantly cold is the in-flowing body of cold water. The gorges—the, no less than the gorges of our text, vastus gorges—on which Aeneas's whole fleet was tossed about, was the vast and deep sea, and the tanti gurgites imagined to be swallowed up by Charybdis were the torrents or cataracts or floods of water imagined to be supplied to that vortex by the sea.

As certainly it was not in a vortex of the Tiber, but in the deep, broad and rapid stream of the Tiber, Maximian used to swim, Eleg. 1. 37 :

“Innabam gelidas Tiberini gurgitis undas.”

Nor with a vortex of tears, but with a flood of tears, would the same poet's mistress (Eleg. 5. 89) bewail his dejecta mentula :

“Quo te dejectam lacrymarum gurgite plangam?”

Nor in the deep vortex of the river, but in the deep stream of the river, stood the wooden bridge of Symposius's riddle:

“Stat nemus in lymphis, stat in alto gurgite silva.”

And more certainly still, if more certainly be possible, it was not from the bottom of a vortex, but from the bottom of the sea, Tethys and Nereus carried up, in their arms, the sunken vessel, for the storm was over, the clouds had returned to the mountain-tops, the rainbow was in the sky, and the waters were placid. Valer. Flacc. 1. 655 :

“Emicuit reserata dies; caelumque resolvit
arcus, et in summos redierunt nubila montes.
Jam placidis ratis exstat aquis, quam gurgite ab imo
et Tethys, et magnis Nereus socer erigit ulnis.”

And not torrent with his whole vortex, but torrent with his whole flood, with his whole body of water, with all his waters, Nile hunted Tisiphone, and dashed her against the sandy bottom of his channel, Valer. Flacc. 4. 409 :

“Contra Nilus adest; et toto gurgite torrens
Tisiphonen agit, atque imis illidit arenis
Ditis opem ac saevi clamantem numina regni.”

In like manner, and with equal certainty, it is not with vortices and a vortex, but with floods and a vortex (in other words, with a stream forming vortices in its course, i. e. an

eddy stream), the portentous river of milk should have flowed into the sea, Juvenal, 13. 69 :

“Tanquam in mare fluxerit amnis
gurgitibus miris et lactis vortice torrens.”

Compare Senec. Thyest. 13. 566 (below); also Claud. Rapt. Pros. 2. 348 :

“Tunc et pestiferi pacatum flumen Avernī
innocuae transistis aves, flatumque repressit
Amsanctus ; fixo tacuit torrente vorago.
Tunc Acheronteos mutato gurgite fontes
lacte novo tumuisse ferunt, hederisque virentem
Cocytō dulci perhibent undasse Lyaeo.”

Panegy. Vet. 9. 8 : O miserabilem Veronensium calamitatem, quos non tam tua, quam intestina satellitum pressit obsidio ! quippe Athesis ille, saxis asper, et gurgitibus vorticosis (forming vortices with its waters, whirlpooling with its waters), et impetu ferox, oppugnationem prohibebat, omnemque retro regionem evehendis copiis tutam defensamque praestabat.” And not a vortex, but a muddy frogs’ pond, was that stagnum, lacus and palus to which, no less than thrice within the space of nineteen lines, the term gorges has been applied by Ovid, Met. 6. 363 :

“Nec satis hoc ; ipsos etiam pedibusque manuque
turbavere lacus ; imoque e gurgite mollem
huc illuc limum saltu movere maligno.
Distulit ira sitim ; neque enim jam filia Coei
supplicat indignis, nec dicere sustinet ultra
verba minora dea, tollensque ad sidera palmas,
‘aeternum stagno,’ dixit, ‘vivatis in isto.’
eveniunt optata deae ; juvat isse sub undas,
et modo tota cava submergere membra palude,
nunc proferre caput, summo modo gurgite nare,
saepe super ripam stagni considerare, saepe
in gelidos resilire lacus. Et nunc quoque turpes
litibus exercent linguas, pulsoque pudore,

quamvis sint sub aqua, sub aqua maledicere tentant.
 Vox quoque jam rauca est, inflataque colla tumescunt,
 ipsaque dilatant patulos convicia rictus.
 Terga caput tangunt, colla intercepta videntur,
 spina viret; venter, pars maxima corporis, albet,
 limosoque novae saliunt in gurgite ranae."

Nor is the meaning thus obtained, by a pretty wide induction, for the term *gurgis* both in our text and elsewhere, not established and placed beyond doubt, especially for the *gurgis* of our text, as well by the general context in which our text stands as by the epithet *vastus*. For what is the general context, what the picture which the general context presents? A great wave, tumbling down headlong on the poop of one of Aeneas's vessels, whirls the vessel rapidly round thrice, and forms in the sea a vortex, whirlpool or eddy, which swallows the vessel up, "*vorat aequore vortex*." After the catastrophe, appear swimming, or floating about, men, planks, arms and valuables. Where? "In the vortex, whirlpool or eddy," answer the commentators. But there is no longer any vortex, whirlpool or eddy. That which there was just now, that which swallowed up the ship, not having been, like Charybdis or Maelstrom, produced by a permanent but only by a momentary cause, viz., the perpendicular tumbling of a great wave or swell into the sea, has ceased to exist, on the cause which produced it ceasing to operate, and the sea has returned to its normal state. On this sea, this deep and vast flood, *gurgite vasto*, present themselves, come into view (apparent), the men, arms, valuables and planks, which have been tossed out of the vessel, while it was being struck from above by the wave, whirled round three times, and swallowed-up by the vortex. Every individual word indicates as plainly that the objects spoken-of are not in the vortex as that they are on the surface of the vast deep. First, they are "*nantes*," floating or swimming. If they were in the

vortex, they would neither float nor swim. They would, like the vessel out of which they were pitched, first be whirled round and round and then they would be sunk: Sil. 3. 474:

“Et tunc imbre recens fuso, correpta sub armis
corpora multa virum spumanti vertice torquens,
immersit fundo laceris deformia membris.”

Next, they are “*rari*,” thinly scattered. The tendency of the vortex would not be to scatter, but to bring together, to collect toward the apex of the inverted cone, toward the lowest point of the eddy. Next, they present themselves, they come into view, “*apparent*.” If they were in the vortex, they would not present themselves, would not come into view, the eye would have to go in search of them, and the more they were in the vortex, the less they would come into view, the farther the eye would have to go in search of them. Next, they are “*per undas*,” everywhere on the water. If they were in the vortex they would not be *per undas* at all, they would be *in undis*. And finally, the place in which they appear floating, present themselves floating, is vast, “*gurgite vasto*.” Why should the vortex in which the ship went down become the *vast vortex*, as soon as the debris, the *reliquiae*, of the ship are seen floating in it? No, no! the scene:

“apparent *rari* nantès in gurgite vasto,
arma virum, tabulaeque et Troia gaza per undas”

is not a continuation of the scene:

“ast illam ter fluctus ibidem
torquet agens circum et rapidus vorat aequore vortex,”

it is a new scene. The ship, struck and three times whirled round by the precipitously falling great wave (*pontus*), has been swallowed-up by the simultaneously formed vortex, which in its turn has been filled up by the

return of the sea to its level, and a new scene presents itself, viz. that of men, arms, valuables from Troy, and debris of the sunken vessel, floating not merely on the water (gurgite) but on the vast water (gurgite vasto), and not merely on the vast water, but everywhere over it (*per undas*). Nor is this the only place in which vortex, gorges, and aequor are so broadly distinguished from each other that he who runs may read. We have the similarly broad distinction, Sil. 1. 592 :

“Vorticibus torquet (Boreas) rapidis mare, fractaque anhelant
aequora, et injecto conduntur gurgite montes—”

where vorticibus are the whirlpools formed by Boreas in the sea (mare), aequora the panting, heaving, alternately rising and falling sea-surface, and gurgite the water covering, burying the mountains (Seneca's all-whelming, all-drowning gorges, Thyest. 867 :

“Monstraque nunquam perfusa mari
merget condens omnia gurgis”)

and the vortices, of course not the aequor, of Cocytus, are similarly distinguished by the same author, 13. 566 :

“Parte alia torrens Cocytus sanguinis atri
vorticibus furit, et spumanti gurgite fertur,”

where gurgis is as plainly as possible the stream of Cocytus, and vorticibus the whirlpools or eddies formed in that stream's course. Compare Juvenal, 13. 69, above, and Claud. de Mall. Theodor. Consul. 234 :

“Acrior ac rapidus tacitas praetermeat ingens
Danubius ripas, eadem clementia sani
gurgitis immensum deducit in ostia Gangen.
Torrentes immane fremant, lassisque minentur
pontibus, involvant spumoso vortice silvas.
pax majora decet.”

where the even, composed, steady gorges, or water-stream, of the immense Ganges, is placed in the strongest contrast

with the noisy, foaming torrent whose vortices endanger bridges and carry away trees, and the moral is drawn, that the greater the power the more becoming to it is peace; exactly as, in our text, it is the vortex which sinks the vessel, while the vast gorges allows the objects which are at its mercy to float; and, still more parallel to our text, Valer. Flacc. 8. 321:

“Ergo ubi diva rates hostemque accedere cernit,
ipsa subit terras tempestatumque refringit
ventorumque domos. volucrum gens turbida fratrum
erumpit; classem dextra Saturnia monstrat.
Videre; inque imum pariter mare protenus omnes
infesto clamore ruunt inimicaque Colchis
aequora, et adversos statuunt a litore fluctus.
Tollitur, atque intra Minyas Argoaque vela
Stirus abit. Vasto rursus desidit hiatu
abrupta revolutus aqua. jamque omnis in astra
itque reditque ratis, lapsoque reciproca fluctu
descendit. trahit hos vortex; hos agmine toto
gorges agit. simul in vultus micat undique terror.
Crebra ruina poli caelestia limina laxat.”

where the vortex draws, or sucks-in, some, while the gorges drives others on, exactly as in our text, those who are not swallowed-up along with their vessel by the vortex, are seen swimming on the gorges.

As the literal so the figurative gorges, and Publius Gallonius (Lucil. ap. Cicer. de Finib. 2. 8. 24) is not a vortex which whirls squills and sturgeons round and round, but a water—lake, pool, river, or sea—which swallows them up:

“O Publi, o gorges Galloni, es homo miser; inquit,
coenasti in vita numquam bene, cum omnia in ista
consumis squilla, atque acipensere cum in decumano—”

and the son of Q. Fabius Maximus is surnamed Gorges, not because he is a vortex and whirls his patrimony round

and round, but because he is a water—pool, lake, river or sea—which engulfs it, Macrobius, Saturn, 2. 9: “Ut taceam Gurgitem, a devorato patrimonio cognominatum.” Compare Prudent. Hamart. 251:

“Exemplum dat vita hominum, quo caetera peccent:
vita hominum, cui quicquid agit, vesania et error
suppeditant, ut bella fremant, ut fluxa voluptas
diffuat, impuro fervescat ut igne libido,
sorbeat ut cumulos nummorum faucibus amplis
gurgis avaritiae, finis quem nullus habendi
temperat, aggestis addentem vota talentis.”

where however we have not merely the correct figurative gurgis of Lucilius and Macrobius, but that correct figurative gurgis with fauces added. In other words: where we are called-on to imagine not merely the pool, lake, river or sea which swallows up, but the fauces also with which the pool, lake, river or sea swallows up; a call, I need hardly inform the Shakespearian scholar, as impossible to be complied with as Lysander's, that Hermia should picture to herself not merely the darkness which in the collied night devours the lightning up, ere a man hath power to say “Behold!” but the very jaws of that darkness.

Μέγα λαῖσμα θαλάσσης, the far more obscure expression in which Heyne, imitating the device of laying a grain of salt on the bird's tail, in order to cause the bird to stand still to be caught, finds the explanation of the far less obscure gurgis, is as unworthy of Heyne as Robert Stephens's heterogeneous triad: “Gurgis, pro ipso maris periculo, et veluti Syrte quadam aut Scylla,” is unworthy of Robert Stephens, or the all depth and no width, and not merely all depth and no width, but all bottomless depth and no width, which Kappes (Erklärung zur Aeneid. 3. 197) recognizes in gurgite vasto: Wir können uns die bedeutung von gurgite vasto, welche noch durch die stellung am verschluss hervorgehoben ist, am besten durch vergleichung mit der stelle

aus Schwab's "Reiter und der Bodensee" verdeutlichen, wo es heisst:

"An den schlund, an die tiefe bodenlos
hat gepocht des rasenden hufes stoss"
und

"Es sieht sein blick nur den grässlichen schlund,
sein geist versinkt in den schwarzen grund—"

is unworthy of Kappes.

This is one of the very numerous instances in which, however certainly and unmistakeably taken from Homer the ground thought of the Virgilian incident, all the particulars of the incident are as certainly and unmistakeably Virgil's own. In both, the vessel is struck with a violence which not only whirls the vessel round and round, but knocks overboard the steersman, who is immediately drowned. Others of the crew, knocked overboard along with the steersman, are, in the Virgilian account, seen floating on the vast gurgles, the vast flood, the vast body of water; in the Homeric account are borne by the waves round the vessel like so many seamews.

. . . κορώνησιν ἵκελοι περὶ νῆα μέλαιναν
κύμασιν ἐμφορέοντο.

Whence this difference in the Virgilian from the Homeric picture? very plainly from the previous difference, that whereas, in the Homeric original, the vessel had not been sunk but only whirled-round, the vessel in the Virgilian copy had not only been whirled-round, but sunk. In the Virgilian copy, therefore, the persons who had been knocked overboard and had not gone down with the vessel in the vortex, could not be represented as borne by the waves round the vessel, could only be represented as floating on the water, the vast flood, the vast waters, gurgite

vasto. Such is the origin, the necessary—so to say, Darwinian,—origin, of Virgil's gurgite vasto, an impressive climax wholly wanting in the so simple and naive Homeric prototype.

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Dalkey Lodge, Dalkey (Ireland),
July 24, 1875.

ON θαμά AND θαμάκις IN PINDAR.

THOSE etymologists who connect θάλασσα with ἄλς commonly justify the prefixed θ by the analogy of θαμά as related to ἄμα. The old school said, as Damm has it in his Lexicon, "θ ex spiritu aspero." The later writers do not put the thing exactly on this basis: ἄλς, they rightly say, is = *sal-s*, and the initial *s* becomes a θ in θάλασσα, just as ἄμα is = *sam-a*, the *s* turning to θ in θαμά. To this last account we may confine ourselves as the only one wearing a scientific aspect; no one is likely to accept Giese's idea that a Homeric word like θαμά can be explained as arising out of τὰ ἄμα. But, if we ask for evidence that initial *s* can become θ, it is not forthcoming. That in Laconian the reverse change took place, that *ex.gr.* σιός was used for the common θεός, is certain. But there appears to be no proof whatever that primitive initial *s* can be represented by θ. This has led the most careful etymologists to reject the idea of the connexion of θάλασσα with ἄλς, and to refer it rather to θράσσω, ταραάσσω (θάλακ - γα = θρακ-γα); and, on the same ground, I decline to admit any connexion between θαμά and ἄμα (*sam-a*), though I am unable to point out the true affinities of θαμά.*

But here I am met by the fact that so great a scholar as Boeckh holds that in Pindar θαμά is pretty frequently used as exactly equivalent to ἄμα, Latin *simul*,

* Curtius does not mention θαμά at all in his *Grundsätze der G. E.* The adjective forms θαμίς, θαμειαί are, of course, akin to it. I cannot find any trace of the root in Sanskrit or Latin.

una. This would, it is true, be possible, without an etymological identity or even affinity between the words being thereby established. The precise equivalence of *πεδά* and *μερά* does not convince Ahrens or Curtius that there is any etymological relation whatever between them. Still, if the fact be as Boeckh alleges, and as Dissen, Schneidewin,* Bergk, Donaldson, Paley, and other scholars, have followed him in believing, it is sure to be employed, rightly or wrongly, to give some support to the pre-existing notion that *θαμά* and *ᾄμα* are the same; and, in fact, Boeckh in his *locus classicus* on *θαμά* (Not. Crit. on O. VII. 12) connects his theory as to the meaning of the word with the common notion as to its etymology. I have, therefore, thought it worth while to examine in detail Pindar's use of *θαμά* and the sister-word *θαμάκις*; and the object of the present paper is to exhibit the results of such an inquiry. The subject is not altogether without interest, apart from its etymological bearings, in relation to the language of Pindar.

First, however, let me say that in no other Greek writer does *θαμά* bear the meaning thus attributed to it by Boeckh. The word occurs nine times in Homer, and always in the sense "often."† Such also is its meaning in Sophocles, in whose extant plays it is found four times; as well as in Plato, who has it at least five times, and in Xenophon. Nor is any other signification assigned to it in any of the old lexicographers;‡ Hesychius, Suidas, Photius, and the Etym.

* I fear we cannot credit Schneidewin with much independent weighing of the evidence on the question. He says on O. VII. 12, "Boeckhius ex aliquot libris *θαμά* correxit, quod apud Pindarum idem quod *ᾄμα* sonare his exemplis confirmavit: Ol. VIII., 45. III., 22. [Read, 21.] Pyth. III. 66. Nem. v., II. VII., 78." He appears to have copied those references from Boeckh without verifying them, or taking the trouble to under-

stand for what Boeckh used them. Not one of them contains the word *θαμά*.

† Liddell and Scott seem to translate it 'together' in Il. o. 470 (apparently to connect it with *ᾄμα*); but that is not the idea of the word there. They do not suggest 'together' as being its meaning anywhere in Pindar. Damm wrongly renders it *dense* in Od. 8. 686.

‡ Except by Apollonius, *Lex. Hom.*, who gives as a second meaning (besides

eg. explain it by συνεχῶς, πυκνῶς, διηνεκῶς. It must, therefore, require a very strong argument, founded on the use of the Pindaric passages in which the word occurs, to convince us that in him alone it bears (and only *sometimes* so) a different meaning.

The following are all the passages in which θαμά occurs ; they are given as they stand in the text of Boeckh's edition :

(A). O. I. 17.

οἶα παίζομεν φίλαν
ἄνδρες ἀμφὶ θαμὰ τράπεζαν.

(B). O. IV. 29.

φύονται δὲ καὶ νέοις ἐν ἀνδράσιν
πολιαὶ θαμὰ καὶ παρὰ τὸν ἀλικίας
ἑοικότα χρόνον.

(C). O. VII. 12.

ἄλλοτε δ' ἄλλον ἐποπτεύει Χάρις ζωθάλμιος ἄδυμελὲ
θαμὰ μὲν φόρμιγγι παμφώνοισι τ' ἐν ἔντεσιν αὐλῶν.

(D). P. III. 78.

. . . Ματρί, τὰν κοῦραι παρ' ἑμὸν πρόθυρον σὺν Πανὶ μέλπονται
θαμὰ
σεμνὰν θεὸν ἐννύχαι.

(E). P. IV. 40.

ἧ μάν νιν ὤτρυνον θαμὰ
λυσιπόνοισι θεραπόντεσσιν φυλάξαι.

(F). P. XII. 25.

. . νόμον . .
λεπτοῦ διανισσόμενον χαλκοῦ θαμὰ καὶ δονάκων.

(G). N. I. 17.

λαὸν ἵππαιχμον θαμὰ δῆ καὶ Ὀλυμπιάδων φύλλοις ἐλαιῶν
χρυσέοις
μιχθέντα.

ἔς) ταχίως, adding the quotation
ἰβάδιζε.' I cannot account for this,
the verb βαδίζειν does not occur in
Iliad or Odyssey (it is found in the

Hymn to Hermes, 210), unless it be the
error of a transcriber for θάμ' ἰβάδιζε.
Il. π, 207. In any case ταχίως, it would
seem, must be wrong.

(H). N. I. 22.

ἔνθα μοι ἁρμόδιον
 δεῖπνον κεκόσμηται, θαμὰ δ' ἄλλοδαπῶν
 οὐκ ἀπείρατοι δόμοι
 ἐντί.

(I). N. II. 9.

ὀφείλει δ' ἔτι . . .
 θαμὰ μὲν Ἰσθμιάδων δρέπεσθαι κάλλιστον ἄντον ἐν Πυθίῳ—
 τε νικᾶν
 Τιμονόου παῖδα.

(J). N. IV. 15.

ποικίλον κιθαρίζων
 θαμὰ κε, τῷδε μέλει κλιθεῖς,
 ὕμνον κελάδησε . . .

(K). N. V. 37.

Ποσειδάωνα . . ὅς Αἰγᾶθεν ποτὶ κλειτὰν θαμὰ νίσσεται Ἰσθμὸν
 Δωρίαν.

(L). N. VII. 97.

δύνασαι δὲ βροτοῖσιν ἄλκᾶν
 ἄμαχανιᾶν δυσβάτων θαμὰ διδόμεν.

(M). I. II. 11.

Χρήματα, χρήματ' ἀνὴρ, ὅς φᾶ κτεάνων θαμὰ λειφθεῖς καὶ φίλων.

(N). FR. 186.

ἥρωες αἰδοίαν ἐμῖγγυντ' ἀμφὶ τράπεζαν θαμὰ.*

* Bergk gives, in his text of Pindar (I. Lyr. Graec. I. Ed. 3), *θάμα* in five of the above places for the *θαμά* of Boeckh and other Editors, and explains it as equivalent to *ἄμα*, and quite different from *θαμά*, *often*. "Neque enim," he says, "idem est atque *θαμά*, i. e. *frequenter*, sed servata hic est antiqua forma particulae *ἄμα*, quae etiam Graecis olim erat *σάμα*: hanc antiquam formam imprimis diu tenuisse videtur Boeoti, ita tamen ut in locum sibilantis litterae succederet *θ*, ut alias

quoque variari solet. Hic etiam Pindarus usus est ea forma [*θάμα*] . . ." On this I remark—1, that there is no support for *θάμα* either from MS. authority or grammatical tradition; 2, that the Boeotians did not change *σ* to *θ*; 3, that *alias* can only refer (see his Note on Nem. vii. 20) to the usage of the Laconians, who changed *θ* into *σ*, but not *σ* into *θ*; 4, that the Boeotians, according to Ahrens, did not even agree with the Laconians in changing *θ* to *σ*; and 5, that there is no specially Boeotian

Besides these places must be taken into account N. vii. 20, where in Boeckh's text was printed

ἀφνέος πενιχρός τε θανάτου παρὰ
σᾶμα νέονται,

but where both he and Dissen afterwards agreed with the view of Hermann, who in the last edition of Heyne's Pindar wrote thus: 'Nisi θανάτου πάρα dictum volumus ut παρ' Ἄιδου, reponendum erit θάνατον πάρα θαμὰ νέονται.' The σᾶμα in fact must be wrong, the first syllable of the line appearing, from the corresponding verses of other stanzas, to be short, and accordingly from Dissen's note on the passage we see that he and Boeckh came to the conclusion that it ought to stand thus—

(O) ἀφνέος πενιχρός τε θάνατον πάρα
θαμὰ νέονται.

Let us examine what, from the context and the poet's meaning, appears to be the true sense of the word in each of these passages. Some of them we can at once dispose of. In (B), (E), (J), (K), (L), Boeckh, in his Interpretatio Latina, renders it by *saepe*, or *frequenter*, and Dissen (who wrote the Commentary on the Nemean and Isthmian Odes

element in Pindar's dialect, and therefore to prove a form Boeotian does not show that it ought to be admitted into, or tolerated in, that poet's text.

Bergk, whilst admitting that "apud Homerum nullum huius formae [his imaginary θάμα] vestigium extat," goes on to say, "sed usus est ea Solon iv. 34, apud Theogn. v. 264, lectio nimis incerta: denique Hesychii glossa θαματροχιῇ huc pertinet, quamquam grammaticus perperam interpretatur οὐχ ἡσυχάζει, est enim nihil aliud quam ἀματροχιῇ, atque pertinere hoc aliquando existimabam Simonid.

Amorg. 5." There is no reason for doubting that in the passage of Solon the word θαμά means 'oft-times.' In the verse of Theognis Bergk himself reads ὥσθ' ἄμα, not ὥς θάμα. The confidence of his assertion as to what Hesychius ought to have said is characteristic; and any reader who will look at the line of Simonides of Amorgos (if it be his) in Bergk's own text, and the note in which he gives the passages of Plutarch in which it is cited, will see that his notion that Hesychius had this line in view has simply nothing whatever to recommend it.

in Boeckh's edition) understands it similarly in the two latter places. About these five, then, there is no question.

On (A) Boeckh says "*θαμά* h. l. est *subinde, frequenter*, etsi ne altera quidem significatio quam stabilivi nott. critt. ad Olymp. vii. 11. aliena est." Mr. Paley, too, gives "often," and there cannot be the least reason for attaching any other signification to the word.

(N) naturally goes with (A). On it, it is true, Boeckh says "*θαμά* est *ἄμα*." But, I ask, why? Read beside this fragment the lines of Homer (Od. α. 209 and δ. 178),

ἐπεὶ θαμὰ τοῖον ἐμισγόμεθ' ἀλλήλοισιν.

and

καὶ κε θάμ' ἐνθάδ' ἑόντες ἐμισγόμεθ',

and the words of Pindar will seem an echo of them. The fragment undoubtedly means "the heroes used oft to mingle around the honoured board." For the position of *θαμά* compare that of *πολλάκις* in P. iv. 295.

In (D) again it is purely gratuitous to translate *θαμά* otherwise than "oft." Boeckh, indeed, says "*θαμά* ambiguum sitne *frequenter*, ut putabam nott. critt. p. 384, an *una*, de quo itidem disputavi; posterius tamen nunc praefero." And Mr. Paley takes the same view. But, again I ask, why? "Whom, along with Pan, maids oft celebrate in song by night" gives quite as good a sense; and Bergk so understands the passage. "*Ἄμα σύν*, I may add, is a combination not found in Pindar.

In (F), before Boeckh's edition, the reading was

χαλκοῦ θ' ἄμα καὶ δονάκων.

The position of the *τε* here is objectionable (though I will not say impossible*) on account of the preceding *λεπτοῦ*; and Boeckh substituted, no doubt correctly, *θαμά* for *θ' ἄμα*. He translates *simul*, "at once through brass and reeds."

* Pindar sometimes has *τε* in unusual positions, as, *ex. gr.*, N. iii. 11.

I think Bergk's reading here, διανισόμενον (fut.; cf. Hom. Il. ψ. 76.) is right; for we must surely place ourselves at the prophetic point of view of Athene; and I translate—"the strain destined oft to pass—that was oft to pass—through tapering (or 'slender') brass and reeds, &c.," i. e. to be often performed on the tibia. Not "permeantem aes," as Dissen renders, while he is forced to give the sense of a future by paraphrasing the context—"certatorem ludorum futurum;" but "saepe permeaturum." The καὶ δονάκων is separated from the χαλκοῦ, because the poet goes on to speak of the source whence the reeds were procured.

In (G) Boeckh renders θαμά δὴ καὶ by "simul omnino .et." On this Dissen observes, "Boeckhius ad Olymp. vii. 11. not. critt. interpretatur *simul*, quod hoc quidem loco minus aptum dicam." And, in the Commentary in his own edition, he says, "*saepe etiam*. Neque enim hic vertendum: *simul etiam*, monstrante etiam particula δὴ." Bergk, too, makes it 'oft'; and I believe that is the real meaning.

In (H), which follows (G) at an interval of four lines, Dissen, somewhat inconsistently, as I think, agrees with Boeckh in rendering the word *simul*. His note is, "θαμά, h. e. ᾄμα. Cf. nott. critt. ad Olymp. vi. 54." Curiously enough, Mr. Paley has exactly the opposite inconsistency. Whilst he understands θαμά in (G) as meaning *simul*, he translates (H), "and *many a time* has the house known how to receive wayfarers from foreign lands." It seems to me plain that this is the correct rendering. Dissen, feeling the difficulty of *opposing* the kind reception of the poet to the hospitable entertainment of ἄλλοδαποί, supposes Pindar to speak as a member of the choir—"choreutis domesticis immixtus, his se annumerat, ita ut opponat ἄλλοδαπούς." But surely it was of himself personally he spoke in v. 18,

πολλῶν ἐπέβαν καιρὸν οὐ ψεύδει βαλὼν,

which recalls several parallel passages in his writings, where he has himself in view. And the refined explanation

of Dissen is only rendered necessary by the special sense which Boeckh and he have chosen to give to *θαμά*.

In (M), *θαμά* is a pure conjecture of Boeckh. The reading in all the MSS. is *κτιάνων θ' ᾄμα*, and there is not the least reason to doubt that it is right. Even Bergk, who introduces his *θάμα* here, says in his note, "libri θ' ᾄμα, quod defendit Hartung, *fortasse recte*."

In (O), if we bear in mind that the *σ* which appears in *σᾄμα* is in all the MSS., though *σᾄμα* itself *must* be wrong, we cannot hesitate to accept (with Schneidewin in his edition of Dissen) Wieseler's correction

θανάτου πέρας

*ᾄμα νέονται,

which is very near the MS. reading, closely resembles the Homeric *θανάτοιο τέλος*, and perfectly suits the place. Those who support *θαμά* here must admit that it involves a very awkward ambiguity.

I have designedly reserved (C) and (I) for final mention. The former seems to have suggested to Boeckh his theory as to the double sense of *θαμά*. There stood in the text before his time *ἀδυμελεῖ θ' ᾄμα μὲν φόρμιγγι*. But there is no place in the sentence for the *τε* after *ἀδυμελεῖ*, the *μὲν* answering to the *τε* which follows *παμφώνοισι*. Boeckh accordingly introduced *θαμά*, which is doubtless right. For the explanation of the sentence, I wish the reader to consider it in conjunction with (I). I regard the two passages as quite similarly constructed. I translate the second, "that the son of Timonous should oft win glory at the Isthmian games, and oft too be victor in the Pythian." The first I render, "Charis looks on (honours) different men at different times, oft with the lyre, oft too with the many-toned

* Bergk here actually prints in his text *σάμα*, the primitive form of *ᾄμα*. A poet singing in the (so-called) Indo-European *Ursprache*, or even in the language of the Graeco-Italian period,

would probably enough have said *sama* for "together," but that Pindar could have used it is, I must be permitted to say, simply incredible.

flute," saepe quidem lyra, saepe etiam tibia; the ἀμφοτέρων which follows thus becomes emphatic—"and now I am come with *both*." The νυν is temporal, not connective; compare P. iii. 66.

Mr. Paley on (I) differs from Boeckh and Dissen; he translates "that many more times he should call, &c.," whilst on (C) he agrees with them, giving "Different people at different times are favourably regarded by the Grace . . . with the accompaniment [?] of the . . . lute, and the instruments of many-toned pipes." I do not think θαμά can here, consistently with the order of the words in the sentence, be made to mean *simul* or *una*. Neither of these words appears in Boeckh's Interpretatio; he gives simply *cum*; but it will be scarcely maintained (though Mr. Paley's rendering seems to imply this) that θαμά goes with the dative here, as ἅμα with the dative in, *ex. gr.*, N. IX. 46, 52. The ἐν plainly goes back to φόρμιγγι (compare ἐν φόρμιγγεσσι κλέονται, I. IV. 27) like σύν in N. X. 38, or παρά in I. I. 29. I may add that my translation, as well as Boeckh's reading, of (C) is confirmed by the comment in the Glossae Interlineares printed in Boeckh's edition, in which ἀδιαλείπτως obviously refers to θαμά, though it is strangely added, σύναπτε δὲ πρὸς τὸ ζωθάλμιος.

So far of θαμά. But, according to Boeckh, the meaning "together," "at the same time," belongs not only to θαμά, but also to θαμάκις, in Pindar. Let us examine the passages of the poet in which the latter word occurs.

These are—

(A'). N. X. 38.

ἔπεται δὲ . . . ματρῶν πολύγνωντον γένος ὑμετέρων
εὐάγων τιμὰ Χαρίτεσσί τε καὶ σὺν Τυνδαρίδαις θαμάκις.

and

(B'). I. I. 28.

τῶν ἀθρόοις ἀνδρησάμενοι θαμάκις
ἔρνεσιν χαίτας . . . ἔφανεν.

Boeckh's notion that θαμάκις in the latter of these passages

might mean *simul* is thus commented on by Dissen: "θαμάκις, de quo in nott. critt. p. 384, ambigit Boeckhius, nolim pro ἅμα hic dictum suspicari, ob sensum et ob locum quo vox posita. Significat hic *saepe*, nec obstat quod praecessit ἀθρόοις, nam sensus: *persaepe vicerunt*." And so also Mr. Paley translates it, "*often* did they crown their locks with several chaplets from these contests at once." I think that there can be no doubt that he is right as to θαμάκις, whilst giving the meaning of ἀθρόοις more correctly than Dissen.

In (A'), however, Dissen agrees with Boeckh (and so does Donaldson) in making θαμάκις = ἅμα. And Mr. Paley, too, translates "by favour of the goddesses of victory and the Tyndaridae *together*," adding in a note "θαμάκις may mean 'often,' like πολλάκις, as in Isthm. i. 28. But in Pindar θαμά generally means ἅμα";—a strange assertion, when it is remembered that out of the fourteen passages in which (if we include (M) and (O)), that word occurs in the Epinikian Odes, Mr. Paley himself translates it "often" in *eight* places, and makes it equivalent to ἅμα in only six. So far is the sense from requiring the rendering 'together', that to translate it in this manner necessitates a very forced explanation of ἔπειτα (the use of ἔπομαι with the object in the accusative is unique in Pindar, unless Hermann's punctuation of O. VI. 71 be correct; but this difficulty affects both interpretations alike). Dissen renders that verb *adscendit ad*, "goes back to," and argues that, if this were not the sense, a καί was indispensable—ἔπειτα δὲ καὶ—when the poet passed from the praise of the present victor to that of his μάτρωες. But the poet really comprehends the case of the victor along with those of Thrasyclus and Antias, under the general distinction of his maternal line. "Success in the games full oft attends the race of thy maternal ancestors." On μάτρωες, which it is not necessary to translate, as Mr. Paley does, "maternal uncles," see Dissen's edition, Note on Nem. iv. 80.

Bergk and Tycho Mommsen, in their editions of Pindar, read (after the single MS. Ambr. A) in O. IV. 27, 28 :

θαμάκι παρὰ τὸν ἀλικίαις
 εὐικότα χρόνον.

If θαμάκι here be right, it means, like θαμά in the ordinary texts, *oft-times*.*

The conclusion, then, at which I arrive is, that θαμά, θαμάκις in Pindar mean only *often*, and that Boeckh's notion that they sometimes mean *simul*, *una*, must be regarded as a groundless fancy of that eminent scholar, adopted, without sufficient reason, by later editors. And thus the last vestige of a reason for considering θαμά to be cognate with ἄμα falls to the ground.

JOHN K. INGRAM.

* θαμινά occurs twice, adverbially used, in Pindar; in O. I. 53, ἀκίρδεια λίλογγεν θαμινὰ κακαγόρος; and in N.

iii. 44. Χερσὶ θαμινὰ βραχυσιδαρον πάλλων. In both places it means *frequently*.

ARISTOPHANICA.

CLOUDS, 1364.

ΦΕΙ. οὐ γὰρ τότ' εὐθὺς χρῆν σ' ἀράττεσθαι τε καὶ πατεῖσθαι
ἄδειν κελεύονθ' ὥσπερὶ τέττιγας ἐστιῶντα ;

we should, I think, read in the second line

ἄδειν κελεύονθ' ὥσπερὶ τέττιγά σ' ἐστιῶντα ;

'as though it was a grasshopper you were feasting.' Am-
biguity is removed, and the simile is improved, becaus-
Phidippides was alone with his father. Suidas quotes th-
line with τέττιγα, but without σέ.

CLOUDS, 1413.

καὶ πρῶτ' ἐρήσομαί σε τουτί· παῖδα μ' ὄντ' ἔτυπτες ;

Cobet, in "Mnemosyne," very properly objects to this
line as unmetrical, and proposes

καὶ πρῶτ' ἐρήσομαί σε τοῦτ'. οὐ παῖδα μ' ὄντ' ἔτυπτες ;

With better rhythm, and less deviation, read :

καὶ πρῶτ' ἐρήσομαί σε τοῦτ', εἰ παῖδα μ' ὄντ' ἔτυπτες ;

PEACE, 960.

TP. φέρε δὴ τὸ δαλίον τόδ' ἐμβάψω λαβών.
σειόν σὺ ταχέως· σὺ δὲ πρότεινε τῶν δλῶν.

Trygaeus is preparing for his sacrifice. The words *σειόν*
σὺ ταχέως appear very obscure. Their obvious meaning
is, "shake yourself," which, whether addressed to an at-
tendant, or to the victim, is nonsense. If it means, 'shake
the torch,' can a parallel to this use of the middle be pro-
duced? It strikes me as possible, the true reading may be
θείου, sulphur, or (better) *θείου*, imperative of *θειώω*, 'to fumi-

gate with sulphur.' There has just been a sort of lustration; and sulphur was used in lustrations. Juvenal's 'sulphura cum taedis' will occur. See Lid. and Scott, s. vv. *θειῶν*, and cf. especially Eur. *Hel.* 866. If *θείου* the genitive be read, a comma must be placed after *ταχέως* instead of a colon.

PEACE, 1039.

ΟΙ. *ταυτὶ δέδραται. τίθεσο τῷ μηρῷ λαβών.*

The servant has been sent within to sacrifice the victim. He returns carrying portions of it in his hands. I think *δέδραται* is possibly right here. 'These here pieces have been skinned.' Cf. 1074, *infra*, *τοῖς ἀλσί γε παστιά ταυτί*. The skinning of the victim comes forward prominently in the Homeric descriptions of the sacrifice.

LYSISTRATA, 594.

ΠΡΟ. *οὐκ οὖν κἄνδρες γηράσκουσιν; ΑΥΞ. μὰ Δι' ἄλλ' οὐκ εἶπας ὁμοιον. ὁ μὲν ἦκων γὰρ, κἄν ἢ πολίος, ταχὺ παῖδα κόρην γεγάμηκεν τῆς δὲ γυναικὸς μικρὸς ὁ καιρὸς, κἄν τούτου μὴ πῖλάβηται οὐδεὶς ἐθέλει γῆμαι ταύτην, ὅττενομένη δὲ κάθηται.*

This is a beautiful passage, and contains a truth which women feel keenly. I think *ἡβῶν* should be read for *ἦκων* in the second line. The coarse reply of the Probulus in v. 598 suits *ἡβῶν* very well. Cf. Hipp. *Aēr.* 282, *ἡβῶσιν ὄψέ*.

LYSISTRATA, 1109.

ΧΟΡ. *χαῖρ' ὦ πασῶν ἀνδρειοτάτῃ· δεῖ δὴ νυνὶ σε γένεσθαι δεινὴν * * * ἀγαθὴν, φαύλην, σεμνὴν, ἀγανὴν, πολύπειρον.*

The omitted word must be the opposite of *δεινὴν* in meaning. It certainly is *δειλὴν*, which completes a sounding line. The epithets are in pairs of opposites, until *πολύπειρον*, which sums them all up: 'terrible, timorous; noble, vulgar; arrogant, affable; many-sided.' Dindorf puts the asterisks in the wrong place, after *ἀγανὴν*.

EMENDATION OF SOPHOCLES, PHILOCTETES, 1142.

ἀνδρός τοι τὸ μὲν εὖ δίκαιον εἰπεῖν
 εἰπόντος δὲ μὴ φθονεράν
 ἐξῶσαι γλώσσας ὀδύνας.

In the first line, I propose,

ἀνδρός τοι τὸ μὲν, οὐ δίκαιον, εἰπεῖν, κ. τ. λ.

‘It is the part of a man to speak, indeed, on occasions when it is proper to speak, but in speaking he should not let malicious spite proceed from his tongue.’

A. P.

THE PERMANENT AND TRANSITORY MODES OF BEING, IN EARLY GREEK PHILOSOPHY.

THE most cursory student of Greek must have been struck by the frequent antithesis of Appearance and Reality in the Hellenic writings. The popular line of Aeschylus,

οὐ γὰρ δοκεῖν ἀριστος ἀλλ' εἶναι θέλει,

has made the contrast familiar to the general reader, and it is the object of this paper to trace to its source in Greek philosophy the all-important distinction between the two modes of Being—permanent and transient—a distinction often verbal and rhetorical, but which underlies all the great questions which have agitated physics, psychology, and religion, from the days of Thales down to Tyndall.

In Thales, the father of European thought, the distinction between the permanent and transitory elements is not explicit. Thales makes water or moisture the paramount primordial material out of which surrounding things are wrought, but makes Mind or God the all-pervading motive-power in combination with the mass, *Aristot. de anima*, i. 5, 15. *Cic. de Nat. Deor.* i. 10. *Diog. Laer.* i., 24, 27, *Plutarch de plac. phil.* 1, 7. It is obvious that the contrast between the constant agent and the variable material is thus virtually asserted. Some historians of Philosophy—and among them Mr. Grote—deny that Thales availed himself of the agency of Mind. Granting the negative, for argument's sake, and throwing over the statement of Aristotle writing on the point, the distinction is still evident, though not so strongly marked, and may best be expressed in the words of Heraclides, *Alleg. Hom.* xxii., *ed. Mehl.* :—Τῶν

στοιχείων ὥσπερ αἰτιώτατον ὁ Θαλῆς ἀπεφήνατο στοιχείον εἶναι τὸ ὕδωρ. The words of Aristotle are, καὶ ἐν τῷ ὅλῳ δέ τινες αὐτὴν (sc. τὴν ψυχὴν) μεμίχθαι φασὶ δθιν ἴσως καὶ Θαλῆς ᾤθη πάντα πλήρη Θεῶν εἶναι. Here, surely, ἴσως does not throw any doubt on the fact of what Thales held, but shows that the filiation of the notions is due to Aristotle himself, and that he is not quite sure of its correctness.

With regard to Anaximander—the child in philosophy of Thales—the evidence is in a similar position. Accord- to the preponderance of authority (Aristot. Phys. 3, 4, 7, Plut. de plac. phil. i. 3, Diog. Laer. 2, i.), the primordial agent was τὸ ἄπειρον, the inexhaustible material of all appearances (Diog. Laer. 2, i., Simplic., Arist. Phys. 1, f. 9), but according to Alexander Aphrodisiensis, who is partly followed by Simplicius ad Phys. 1, f. 6, the motive agent was μεταξύ τι, something intermediate between water and air, with τὸ ἄπειρον as its attribute. Here again, on either showing, we can recognise the constant and the variable, not physically separate, but metaphysically separable, λόγῳ οὐ φύσει. Anaximander would have been invaluable at Belfast, for he held that men were originally mudfish who judiciously and naturally selected dry land. (Plut. *Convival. disput.* 8, viii. 4.)

Anaximenes marked the metaphysical antithesis still more strongly by making the primordial element infinite in essence, while the qualities it exhibited were essentially finite. (Plut. ap. Euseb. Praep. Evang. 1, 8, Cic. Acad. qq. 2, 37.)

In Anaxagoras the distinction of the Elements is carried to precision; the constant element νοῦς is that which is unlimited, self-controlled, uncompounded, and distinct; while the variable, the objects on which νοῦς acts, are in each respect the direct opposite (Anax. *fr.* 6), and νοῦς is motive while its object is mobile, and actually moved (*ib.* *fr.* 7). But in one sense both elements or factors are equally con-

stant, for γίνεσθαι and ἀπόλλυσθαι are mere aggregation and segregation (*fr.* 17). He expressly says that the Greeks are wrong in the sense they give these words (*ib.* *fr.* 17).

Diogenes Apolloniates made intelligent air the prime and material agent (*Diog. Apoll. fr.* 6), and he expressly says, πάντα τὰ αὐτὰ ἀπὸ τοῦ αὐτοῦ ἐτεροῦσθαι (*fr.* 2), the relation between the factors being μέτεξιν (*fr.* 6). The Prime Agent is ἀίδιον καὶ ἀθάνατον, while its products come and go, τὰ μὲν γίνεται τὰ δὲ ἀπολείπει (*ib.* *fr.* 7).

Archelaus appears to have differed from Anaxagoras in making the cosmopoeic process immanent in matter, and the two factors can only be opposed as *prius* and *posterius* (Origenes Philosoph. 9, τῷ νῶ ἑνυπύρχειν τι εὐθέως μῖγμα). His system remarkably resembles that of Spinoza: one infinite substance with two attributes, density and tenuity (Plut. *plac. phil.* i. 3).

Xenophanes, who is put at the head of the Eleatic School by Plat., Soph. 242 D., and Aristot. Met. i, 5, declares that no man can attain certainty in either theology or metaphysics: δόκος is all-pervading, δόκος δ' ἐπὶ πᾶσι τέτυκται, and he expressly declares concerning his own opinions, δεδύξασται μὲν εἰκότα τοῖς ἐτύμοισι; and in a passage cited by Aristotle. Rhet. 2, 23, he certainly opposes γενέσθαι and εἶναι, ὅτι ὁμοίως ἀσεβοῦσιν οἱ γενέσθαι θεοὺς τοῖς ἀποθανεῖν λέγουσιν, ἀμφοτέρως γὰρ συμβαίνει μὴ εἶναι ποτε θεούς.

As to Heraclitus, a single quotation will suffice. He holds, κόσμον τὸν αὐτὸν ἀπάντων, οὔτε τις θεῶν οὔτε ἀνθρώπων ἐποίησεν· ἀλλὰ ἦν αἰεὶ καὶ ἔσται πῦρ αἰεζῶν ἀπτόμενον μέτρῳ καὶ ἀποσβεννύμενον μέτρῳ.—*fr.* 27.

The philosophy of Democritus is one contrast of the two eternal and ultimate elements, τὰ ἄτομα καὶ κενόν. These, he says, exist κατὰ ἀλήθειαν, while sensible things, τὰ αἰσθητά, have merely a relative existence, νομίζεται μὲν εἶναι καὶ δοξάζεται (*fr. rh.* i), that is, as he further explains,

sensible impressions and empirical knowledge are the result of impulse, or resistance to our organs, *κατὰ σώματος διαθιγὴν καὶ τῶν ἐπεισιόντων καὶ τῶν ἀντιστηριζόντων*. In other words, τὰ ἄτομα and τὸ κενὸν have each a separate existence, while sensible things are a resultant of two at least. It may be remarked, that the form τὰ ἄτομα, indivisible things, is more philosophical than the feminine αἱ ἄτομοι, which appears to imply γραμμαί, or some geometrical quantity. Democritus, therefore, certainly regards atoms and void as the ultimate causes acting through Δίνη—a process of perpetual secretion, ἀποκρίνεσθαι (*fr. ph. 6*, *Simplic. ad Aristot. Phys. 73. b.*) His theory of perception is that of Aristotle, falsely claimed by Sir W. Hamilton as Natural Realism, viz., a modification producing dissimilarity, and finally resulting in similarity, to the external object (*fr. ph. 12*. *Theophrast., περὶ αἰσθήσεως καὶ αἰσθητῶν*, 49). Democritus also closely resembles Locke, in ascribing flavour and other sensible qualities to figure, σχῆμα (*ph. fr. 34*).

Empedocles applies the several parts of εἶναι to describe sensible existence, such existence being derivative, and flowing from the four primary elements.

ἐκ γὰρ τῶν ὅσα τ' ἦν ὅσα τ' ἔσσετον ὅσα τ' ἔασιν.

περὶ φύσεως.—Proem. 61.

Unity and plurality are merely aggregation and dispersion in space (περὶ φ., i. vv., 64–74), a passage which has acquired notoriety from its citation by Prof. Tyndall as containing the notion of Natural Selection. Empedocles draws a strong contrast between the primordial elements,

αὐτὰ γὰρ ἔστιν ταῦτα δι' ἀλλήλων δὲ θεόντα

γίγνεται ἀλλοιωπά· διάπτυξις γὰρ ἀμείβει—132–3, cf. 149.

Parmenides posits two modes of Being; these he terms, respectively, ἀλήθεια and δόξα (vv. 29–30, cf. 110–113). Δόξαι are not necessarily contradictory to ἀλήθεια,

ἀλλ' ἔμπηξ καὶ ταῦτα μαθήσεται ὥς τὰ δοκούντα

χρὴν δοκίμως εἶναι διὰ παντὸς πάντα περῶντα—vv. 31, 32 ;

that is, the opposition is accidental between subjective feeling and objective reality, provided one makes a complete induction. In this passage I propose to retain εἶναι in close connexion with δοκίμως, in opposition to the conjectures, γινῶναι and ἰέναι of Mullach and Peyton, and translate, "but for all that, you will see that you are bound to hold that sensible appearances have a *probable existence* if you pass over the whole field of survey." The imperfect χρῆν is also right, as it expresses what flows from the hypothesis, like the Lucretian *debere*. Parmenides thus posits the objective One and the subjective Many, not as incompatibilities, but as respectively superior and inferior, and in this has been followed by Plato.

Even in sensible appearances, Parmenides recognises a higher and a lower element (μορφαί, 113), and with the instinct of his race preserved in the word ἐναργής, derives, apparently, the qualities of touch from those of sight. Solidity and Diversity he connects with darkness, making the Manifold an interruption of the oneness, or continuity of light (vv. 112-118).

From the preceding it will appear that from the commencement of Greek philosophy there was an antithesis more or less explicit between the permanent and transitory modes of existence. This antithesis Plato brought into prominence by his well-known phrases, the One and the Many. These have, of course, a primary reference to number, which in ancient thought was avowedly geometrical. We, moderns, on the other hand, are more inclined to translate metaphysics into the language of time. But those who are inclined to look beyond words will see the same current of thought underlying the better known distinctions of Substance and Accident, Power and Quality, Noumenon and Phenomenon, and others of the kind. Nor can the molecular theory free us from the difficulty, that is, the metaphysical antithesis of *prius* and *posterius*. A high,

if not the highest, authority, Clerk Maxwell, says, in the closing paragraph of his Theory of Heat, "If we suppose the molecules to be made at all, or if we suppose them to consist of something previously made, why should we expect any irregularity to exist among them?" p. 312. The possibility of either hypothesis destroys the pretensions of the molecules as an ἀρχὴ or ultimate *prius*. This, of course, does not affect their utility as a physical or relative *prius*. But that one of the ablest exponents of the most advanced physics is forced to take notice of such possibilities justifies fully the remark of Plato that the antithesis of One and Many (and their modern equivalents) is ἀθάνατόν τι καὶ ἀγήρων πάθος. And though brought into prominence by Plato, it is an essential ingredient in the extant fragments of every one of his predecessors.

T. M.

ON THE EQUATIONS OF EQUILIBRIUM OF AN ELASTIC SURFACE.

LAGRANGE has investigated the problem of the equilibrium of an elastic string in two ways, first supposing it to be perfectly flexible, and then on the hypothesis that it was like a spring.

He has only investigated the problem which corresponds to the first of these in the case of an elastic surface, and I here propose to supply the omission.

It is not very easy to see at once what function to use as that which will best express the flexure of the surface, as we cannot use the total curvature which is unaltered by any bending of an inextensible surface. I therefore pitched upon $\left(\frac{1}{R} + \frac{1}{R'}\right)dS$ as most suitable: for if ds and ds' be elements of two lines of curvature, the bending round ds is $\frac{ds'}{R'}$ and this per unit of length of ds is $\frac{ds ds'}{R'}$ and similarly for ds' ; so the total bending may be represented by $\left(\frac{1}{R} + \frac{1}{R'}\right)dS$, when dS is the element of surface $= ds ds'$.

We thus get for the equilibrium of a surface possessing both kinds of elasticity the following formula:—

$$\int \left\{ \delta \Pi. dS + E. \delta. dS + F. \delta \left(\frac{1}{R} + \frac{1}{R'} \right), dS \right\} = 0;$$

calling E the elastic force of the surface, and F that of its flexure. Hence calling

$$\frac{1}{R} + \frac{1}{R'} = l = \frac{(1+q^2)r - 2pq^2s + (1+p^2)t}{U^2}, dS = U dx dy$$

where

$$U = \sqrt{1 + p^2 + q^2}$$

and

$$\delta \Pi = X \delta x + Y \delta y + Z \delta z,$$

we get on integrating this out by parts according to the principles of the Calculus of Variations,

$$\begin{aligned} 0 = & \int \left[EU \delta x + E \frac{dU}{dp} \delta z + FU \left(\frac{dl}{dp} \delta z + \frac{dl}{dr} \delta p + \frac{1}{2} \frac{dl}{ds} \delta q \right) \right] dy \\ & + \int \left[EU \delta y + E \frac{dU}{dq} \delta z + FU \left(\frac{dl}{dq} \delta z + \frac{1}{2} \frac{dl}{ds} \delta p + \frac{dl}{dt} \delta q \right) \right] dx \\ & - \int \left[\frac{d}{dx} \left(FU \frac{dl}{dr} \right) + \frac{1}{2} \frac{d}{dy} \left(FU \frac{dl}{ds} \right) \right] \delta z dy \\ & - \int \left[\frac{d}{dy} \left(FU \frac{dl}{dt} \right) + \frac{1}{2} \frac{d}{dx} \left(FU \frac{dl}{ds} \right) \right] \delta z dx \\ & + \left\{ \begin{aligned} & (X \delta x + Y \delta y + Z \delta z) U + E \left(\frac{dU}{dx} \delta x + \frac{dU}{dy} \delta y \right) \\ & + FU \left(\frac{dl}{dx} \delta x + \frac{dl}{dy} \delta y \right) \\ & - \frac{dEU}{dx} \delta x - \frac{dEU}{dy} \delta y \\ & - \left[\frac{d}{dx} \left(E \frac{dU}{dp} \right) + \frac{d}{dy} \left(E \frac{dU}{dq} \right) + \frac{d}{dx} \left(FU \frac{dl}{dp} \right) \right. \\ & + \frac{d}{dy} \left(FU \frac{dl}{dq} \right) - \frac{d}{dx^2} \left(FU \frac{dl}{dr} \right) + \frac{d^2}{dx dy} \left(FU \frac{dl}{ds} \right) \\ & \left. - \frac{d^2}{dy^2} FU \frac{dl}{dt} \right] \delta z \end{aligned} \right\} \frac{dx}{dy} \end{aligned}$$

Hence as $\delta z = \delta' z - p \delta x - q \delta y$, calling the coefficient of δz , P , we get the three following equations:—

$$UX + E \frac{dU}{dx} - \frac{dEU}{dx} + FU \frac{dl}{dx} + pP = 0$$

$$UY + E \frac{dU}{dy} - \frac{dEU}{dy} + FU \frac{dl}{dy} + qP = 0$$

$$UZ - P = 0$$

From these, since $dz = p dx + q dy$, we get

$$Ud\Pi - UdE + FUdl = 0.$$

Therefore, as in all these cases, we get, assuming the forces to have a potential Π ,

$$\Pi + a = E - \int Fdl.$$

From the equation, $UZ - P = 0$, we get, writing P at length:—

$$UZ = \left\{ \begin{aligned} & \frac{d}{dx} \left(E \frac{dU}{dp} \right) + \frac{d}{dy} \left(E \frac{dU}{dq} \right) + \frac{d}{dx} \left(FU \frac{dl}{dp} \right) \\ & \quad + \frac{d}{dy} \left(FU \frac{dl}{dq} \right) \\ & - \frac{d^2}{dx^2} \left(FU \frac{dl}{dr} \right) - \frac{d^2}{dx dy} \left(FU \frac{dl}{ds} \right) \\ & \quad - \frac{d^2}{dy^2} \left(FU \frac{dl}{dt} \right) \end{aligned} \right\}$$

Now, from this, since

$$\frac{dU}{dp} = \frac{p}{U}, \quad \frac{dU}{dq} = \frac{q}{U}$$

$$\frac{dl}{dp} = 2 \frac{pt - qs}{U^3} - \frac{3lp}{U^3}, \quad \frac{dl}{dq} = \frac{qr - ps}{U^3} - \frac{3lq}{U^3},$$

and since

$$l = \frac{d}{dx} \cdot \frac{p}{U} + \frac{d}{dq} \cdot \frac{q}{U}$$

and as these are total differentiations,

$$X + pZ = \frac{dE}{dx} - F \frac{dl}{dx}, \quad Y + qZ = \frac{dE}{dy} - F \frac{dl}{dy}, \quad \text{for } d\Pi = dE - Fdl$$

and assuming $Z - pX - qY = U.N$, N being the normal force, and since

$$\frac{dl}{dr} = \frac{1+q^2}{U^2}, \quad \frac{dl}{ds} = -\frac{2pq}{U^2}, \quad \frac{dl}{dt} = \frac{1+p^2}{U},$$

we get, on grouping the terms according to the order of the differentiations with regard to F ,

$$N = l(E - Fl)$$

$$\begin{aligned} & -F \left\{ 2l + 2 \left(\frac{p}{U} \frac{dl}{dx} + \frac{q}{U} \frac{dl}{dy} \right) - 2 \left(\frac{d}{dx} \cdot \frac{pt - qs}{U^2} + \frac{d}{dy} \cdot \frac{qr - ps}{U^2} \right) \right. \\ & \quad \left. + \frac{d^2}{dx^2} \frac{1+q^2}{U^2} - 2 \frac{d^2}{dx dy} \frac{pq}{U^2} + \frac{d^2}{dy^2} \frac{1+p^2}{U^2} \right\} \\ & + \frac{dF}{dx} \left\{ 2 \frac{pt - qs}{U^2} - \frac{3lp}{U} - 2 \frac{d}{dx} \frac{1+q^2}{U^2} + 2 \frac{d}{dy} \cdot \frac{pq}{U^2} \right\} \\ & + \frac{dF}{dy} \left\{ 2 \frac{qr - ps}{U^2} - \frac{3lq}{U} - 2 \frac{d}{dy} \frac{1+p^2}{U^2} + 2 \frac{d}{dx} \frac{pq}{U^2} \right\} \\ & + \frac{1+q^2}{U^2} \cdot \frac{d^2 F}{dx^2} - \frac{2pq}{U^2} \cdot \frac{d^2 F}{dx dy} + \frac{1+p^2}{U^2} \cdot \frac{d^2 F}{dy^2}. \end{aligned}$$

This can be very much simplified by differentiating these out, and the work will be comparatively short if the following method be adopted:—

Calling the third differentials $\frac{d^3 z}{dx^3}$, &c., k, l, m, n , we see that

$$\begin{aligned} \frac{d}{dx} \frac{pt - qs}{U^2} &= \frac{rt - s^2}{U^2} - \frac{2(pt - qs)(pr + qs)}{U^3} + \frac{pm - ql}{U^2} \\ \frac{d}{dy} \frac{qr - ps}{U^2} &= \frac{rt - s^2}{U^2} - \frac{2(qr - ps)(ps + qt)}{U^3} + \frac{ql - pm}{U^2} \end{aligned}$$

Hence $\frac{d}{dx} \frac{pt - qs}{U^2} + \frac{d}{dy} \frac{qr - ps}{U^2} = 2 \frac{rt - s^2}{U^3} = 2 \Delta$, where $\Delta = \frac{1}{RR'}$, the total curvature.

It is also easy to see that

$$\frac{d}{dx} \frac{1+q^2}{U^2} - \frac{d}{dy} \frac{pq}{U^2} = -\frac{2Cp}{U} + \frac{pt-qs}{U^2} = \Theta,$$

$$\frac{d}{dy} \frac{1+p^2}{U^2} - \frac{d}{dx} \frac{pq}{U^2} = -\frac{2lq}{U} + \frac{qr-ps}{U^2} = \Theta',$$

and the 2nd differentials, in the coefficient of F , are $\frac{d\Theta}{dx} + \frac{d\Theta'}{dy}$.

But as $\frac{d}{dx} \frac{p}{U} + \frac{d}{dy} \frac{q}{U} = l$,

$$\begin{aligned} \frac{d\Theta}{dx} + \frac{d\Theta'}{dy} = & -2l^2 - 2 \left(\frac{p}{U} \cdot \frac{dl}{dx} + \frac{q}{U} \cdot \frac{dl}{dy} \right) + \frac{d}{dx} \frac{pt-qs}{U^2} \\ & + \frac{d}{dy} \frac{qr-ps}{U^2}. \end{aligned}$$

Hence the coefficient of F is

$$-\frac{d}{dx} \frac{pt-qs}{U^2} - \frac{d}{dy} \frac{qr-ps}{U^2} = -2 \frac{rt-s^2}{U^4} = -2\Delta.$$

Similarly the coefficient of $\frac{dF}{dx}$ is $\frac{lp}{U}$, and of $\frac{dF}{dy}$, it is $\frac{lq}{U}$. Hence we get at once

$$\begin{aligned} N = & l(E - Fl) + 2F \cdot \Delta + l \left(\frac{p}{U} \cdot \frac{dF}{dx} + \frac{q}{U} \cdot \frac{dF}{dy} \right) \\ & + \frac{1+q^2}{U^2} \frac{d^2F}{dx^2} - \frac{2pq}{U^2} \cdot \frac{d^2F}{dxdy} + \frac{1+p^2}{U^2} \cdot \frac{d^2F}{dy^2}, \end{aligned}$$

which is rather an elegant expression for N .

G. F. FITZGERALD.

ON THE EFFECTS OF MAGNETIZATION OF THE IRON IN A SHIP, ON THE COMPASS, WHEN THE SHIP HEELS.

I ASSUME that the magnetization induced in any direction by the earth is proportional to the cosine of the angle between that direction and that of the earth's magnetism. Also that the moment of this induced magnetism on the needle in any direction is proportional to the cosine of the angle between these directions.

I divide the magnetization of the ship into fore and aft magnetization, beam magnetization, and vertical magnetization. It is to be observed that as the fore and aft magnetization is not symmetrical with respect to the compass, it will have a vertical disturbing moment, and the vertical one will similarly have a horizontal moment, and the coefficients of these, depending on the position of the compass in the ship, may be shown, as by Airy's method, to be the same.

I will only consider the easterly component of these disturbing forces, as that is the only one which deflects a compass as it is usually hung.

Suppose now that K is the moment of permanent vertical magnetism in the ship on the needle, and h is the angle of the ship's heeling, and A the westerly azimuth of the ship's head from the north. Then, assuming that the horizontal effect of this vertical magnetism has been already compensated, as is usually the case in ships, there only remains the easterly component $= -K \sin h \cos A$ due to the heeling.

The fore and aft magnetization is unaltered by the

heeling. Calling δ the dip, and I the earth's inductive force, the fore and aft induced magnetism will vary as $I \cos \delta \cos A$, and the easterly component of this on the needle will vary as $I \cos \delta \cos A \sin A$, and calling H the horizontal earth's force $= I \cos \delta$, and $V = I \sin \delta$ the vertical force, and l the factor depending on the ship's shape, we get that the easterly component due to this cause is

$$= H \frac{1}{3} l \sin 2 A.$$

The beam induced magnetism similarly varies as $I \cos IB$ where IB is the angle between the direction of the dip and the beam. This gives that it varies as $-I (\cos \delta \cos h \sin A + \sin h \sin \delta)$. Hence the easterly moment may be expressed by $= -Im (\cos \delta \cos h \sin A + \sin h \sin \delta) \cos A = -H \frac{1}{3} m \sin 2 A - Vm \sin h \cos A$.

Similarly for the effect of the vertically induced magnetism we get two sources of deflection: 1° , due to the unsymmetrical position of this magnetization relatively to the compass; and 2° , due to the heeling of the ship making this, which is vertical to the ship's deck, have an easterly component. Let the moment of the first be n , and of the second r , when we get that the easterly component due to the first source is

$$Vn \cos h \sin A - nH \sin h \sin^2 A,$$

and due to the second source is

$$Vr \sin h \cos A - H \frac{1}{3} r \sin^2 h \sin 2 A.$$

Besides these, the vertical component of the fore and aft magnetism will have the component due to heeling

$$Hn \sin h \cos^2 A.$$

Its moment is n , as well as the first of the vertical components, as I have already remarked.

Adding up all these easterly components we get

$$Y = H\frac{1}{2}l \sin 2A - H\frac{1}{2}m \cos h \sin 2A + Vn \cos h \sin A \\ - \sin h \{ K \cos A + Vm \cos A + H\frac{1}{2}r \sin h \sin 2A \\ - Hn \cos 2A - Vr \cos h \cos A \}$$

Ordering these according to the powers of $\sin h$ or $\sin \frac{1}{2}h$, and putting in for $\frac{1}{2}(l-m) = p$, $m-r = s$, we get

$$Y = -Hq \sin 2A - Vn \sin A \\ - \sin h \{ Hn \cos 2A + (K + Vs) \cos A \} \\ - \sin^2 \frac{1}{2}h \{ (r \cos h - s) H \sin 2A + 2 Vr \sin h \cos A \\ - 2 Vn \sin A \}.$$

Expanding to the first power of h , this gives the same result as Airy gets by his cumbrous process.

The principal value of these investigations is, of course, to get the form of the functions, as practically the constants have to be determined empirically in each particular ship.

GEO. F. FITZGERALD.

NOTES ON CRYSTALLOGRAPHY.

THE following paper is an attempt to develop some of the principles and methods given by Mr. Miller, in his Treatise on Crystallography, and to arrive at general expressions for the conditions which must be fulfilled, in order that a crystal should belong to any particular system. It is arranged so as to be intelligible to those who have no previous knowledge of the subject.

§ 1. *Definition of Axes.*—The Axes of a crystalline system are three right lines meeting in a point, and such that, if one plane of the system makes intercepts on them proportional to a, b, c , any other plane of the system will make intercepts proportional to integer submultiples of a, b, c .

If three axes can be found satisfying the above definition, and at right angles to each other, the crystal belongs to one of the Metric or Orthogonal systems.

If axes at right angles can be found such that $a = b = c$, the system is Monometric.

If it be impossible to assign axes fulfilling these conditions, and yet axes at right angles can be found such that two of the intercepts a, b, c , are equal, the system is Dimetric.

If it should be possible to find axes at right angles to each other, and at the same time impossible to determine them so that any two of the intercepts a, b, c , should be equal, the system is Trimetric.

Of the remaining Crystalline systems so complete a subdivision has not generally been made. They are usually divided into the Rhombohedral or Hexagonal, and into the Monoclinic, Diclinic, and Triclinic systems.

In the Rhombohedral system it is possible to assign

three axes making equal angles with each other, and such that the three intercepts a, b, c , are equal.

In the Clinic systems it is impossible to assign three axes at right angles to each other, but in the Monoclinic they can be assigned so that two of them shall be at right angles to the third.

In the Diclinic system this is impossible, but three axes can be found such that two are at right angles to each other.

In the Triclinic system it is impossible to assign three axes, any two of which are at right angles to each other.

In order to arrive at general expressions for the conditions belonging to each system, some preliminary considerations are necessary, most of which are to be found in Mr. Miller's treatise, but which are investigated here in a slightly different manner.

It is obvious that the equation of any plane of a crystalline system referred to the axes is of the form

$$\frac{lx}{a} + \frac{my}{b} + \frac{nz}{c} = \mu;$$

where a, b, c are the intercepts made by one plane, and l, m, n are integers, which are called the *symbols* of the plane.

To find the equations of a line passing through the origin, and parallel to the intersection of two planes of the system.

Let the symbols of the planes be $p_1, q_1, r_1, p_2, q_2, r_2$, and let the equations of the line be

$$\frac{x}{Ua} = \frac{y}{Vb} = \frac{z}{Wc}$$

where U, V, W are to be determined. Substituting for $x, \lambda Ua$, for $y, \lambda Vb$, and for $z, \lambda Wc$, in the equation of one of the planes, and seeking the condition that λ should be infinite, we obtain $Up_1 + Vq_1 + Wr_1 = 0$.

From the other plane $Up_2 + Vq_2 + Wr_2 = 0$. Hence

$$U = \begin{vmatrix} q_1 & r_1 \\ q_2 & r_2 \end{vmatrix},$$

with similar expressions for the others.

From this it appears that U, V, W are integers. They are called the *symbols* of the line which is parallel to the intersection of the two planes of the system, and the line is termed a *zone axis*. Conversely, any line whose equations are of the form

$$\frac{x}{P_1a} = \frac{y}{Q_1b} = \frac{z}{R_1c},$$

where P_1, Q_1, R_1 are integers, is a zone axis. For, take any other two lines whose equations are

$$\frac{x}{P_2a} = \frac{y}{Q_2b} = \frac{z}{R_2c}, \text{ and } \frac{x}{P_3a} = \frac{y}{Q_3b} = \frac{z}{R_3c},$$

where $P_2, Q_2, R_2, P_3, Q_3, R_3$, are integers, and it is obvious that the equations of planes containing the lines (P_1, Q_1, R_1) , (P_2, Q_2, R_2) , and the lines (P_1, Q_1, R_1) , (P_3, Q_3, R_3) , are of the form

$$\frac{u_2x}{a} + \frac{v_2y}{b} + \frac{w_2z}{c} = 0,$$

$$\frac{u_3x}{a} + \frac{v_3y}{b} + \frac{w_3z}{c} = 0,$$

where $u_2, v_2, w_2, u_3, v_3, w_3$, are integers. Hence these are planes of the crystalline system, and the line (P_1, Q_1, R_1) is a zone axis.

Any three zone axes may be taken as axes of the crystalline system.

Let the symbols of the three zone axes referred to the original axes be

$$X_1, Y_1, Z_1, \quad X_2, Y_2, Z_2, \quad X_3, Y_3, Z_3,$$

and let the equation of any plane of the system be

$$\frac{lx}{a} + \frac{my}{b} + \frac{nz}{c} = \mu.$$

Substituting λX_1a for x , λY_1b for y , and λZ_1c for z in this equation, we obtain

$$\lambda(lX_1 + mY_1 + nZ_1) = \mu.$$

Hence, if ξ_1, η_1, ζ_1 be the co-ordinates of the intersection of the zone axis (X_1, Y_1, Z_1) with the plane of the system,

$$\xi_1 = \frac{\mu X_1 a}{lX_1 + mY_1 + nZ_1}, \quad \eta_1 = \frac{\mu Y_1 b}{lX_1 + mY_1 + nZ_1},$$

$$\zeta_1 = \frac{\mu Z_1 c}{lX_1 + mY_1 + nZ_1}.$$

If, now, a be the length of the intercept made by this plane on the zone axis, and $\omega_1, \omega_2, \omega_3$ be the angles between the three original axes,

$$a^2 = \xi_1^2 + \eta_1^2 + \zeta_1^2 + 2\xi_1\eta_1 \cos \omega_3 + 2\eta_1\zeta_1 \cos \omega_1 + 2\zeta_1\xi_1 \cos \omega_2,$$

or

$$a^2 = \frac{\mu^2}{(lX_1 + mY_1 + nZ_1)^2} \{X_1^2 a^2 + Y_1^2 b^2 + Z_1^2 c^2 + 2X_1 Y_1 ab \cos \omega_3$$

$$+ 2Y_1 Z_1 bc \cos \omega_1 + 2Z_1 X_1 ca \cos \omega_2\}$$

Similar expressions hold good for β^2 and γ^2 , where β and γ are the intercepts on the zone axes (X_2, Y_2, Z_2) and (X_3, Y_3, Z_3). If, then, we assume

$$l' = lX_1 + mY_1 + nZ_1, \quad m' = lX_2 + mY_2 + nZ_2, \quad n' = lX_3 + mY_3 + nZ_3;$$

$$a'^2 = X_1^2 a^2 + Y_1^2 b^2 + Z_1^2 c^2 + 2X_1 Y_1 ab \cos \omega_3 + 2Y_1 Z_1 bc \cos \omega_1$$

$$+ 2Z_1 X_1 ca \cos \omega_2,$$

with similar expressions for b'^2 and c'^2 , we have

$$a = \frac{\mu}{l'} a', \quad \beta = \frac{\mu}{m'} b', \quad \gamma = \frac{\mu}{n'} c',$$

where l', m', n' are integers, and the equation of the plane referred to the three zone axes is

$$\frac{x}{a} + \frac{y}{\beta} + \frac{z}{\gamma} = 1; \quad \text{or} \quad \frac{l'x}{a'} + \frac{m'y}{b'} + \frac{n'z}{c'} = \mu.$$

Hence, since $l', m',$ and n' are integers, and a', b', c' independent of l, m, n , the truth of the theorem is established.

It is easy to see that the converse of the theorem just proved is true likewise, for the three co-ordinate planes being planes of the system, their intersections with each other, which are the three axes, must be zone axes.

To find an expression for the angle between two zone axes whose symbols are given.

Let the zone axes be (P_1, Q_1, R_1) , (P_2, Q_2, R_2) , and let the co-ordinates of points on them, whose distances from the origin are ρ_1, ρ_2 , be $x_1, y_1, z_1, x_2, y_2, z_2$, and the distance between them ρ . Then, θ being the angle sought,

$$\begin{aligned} \rho_1^2 + \rho_2^2 - 2\rho_1 \rho_2 \cos \theta = \rho^2 = & (x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2 \\ & + 2(x_1 - x_2)(y_1 - y_2) \cos \omega_3 + 2(y_1 - y_2)(z_1 - z_2) \cos \omega_1 \\ & + 2(z_1 - z_2)(x_1 - x_2) \cos \omega_2. \end{aligned}$$

Hence,

$$\begin{aligned} \rho_1 \rho_2 \cos \theta = & x_1 x_2 + y_1 y_2 + z_1 z_2 + (x_1 y_2 + y_1 x_2) \cos \omega_3 \\ & + (y_1 z_2 + z_1 y_2) \cos \omega_1 + (z_1 x_2 + x_1 z_2) \cos \omega_2. \end{aligned}$$

From the equations of the zone axis (P_1, Q_1, R_1) ,

$$x_1 = \lambda P_1 a, \quad y_1 = \lambda Q_1 b, \quad z_1 = \lambda R_1 c, \text{ and}$$

$$\rho_1^2 = x_1^2 + y_1^2 + z_1^2 + 2x_1 y_1 \cos \omega_3 + 2y_1 z_1 \cos \omega_1 + 2z_1 x_1 \cos \omega_2.$$

Hence, finally,

$$\cos \theta = \frac{1}{\rho_1 \rho_2} \{ P_1 P_2 a^2 + Q_1 Q_2 b^2 + R_1 R_2 c^2 + (P_1 Q_2 + Q_1 P_2)$$

$$ab \cos \omega_3 + (Q_1 R_2 + R_1 Q_2) bc \cos \omega_1 + (R_1 P_2 + P_1 R_2) ca \cos \omega_2 \},$$

where

$$\begin{aligned} \rho_1^2 = & P_1^2 a^2 + Q_1^2 b^2 + R_1^2 c^2 + 2P_1 Q_1 ab \cos \omega_3 + 2Q_1 R_1 bc \cos \omega_1 \\ & + 2R_1 P_1 ca \cos \omega_2, \end{aligned}$$

$$\begin{aligned} \rho_2^2 = & P_2^2 a^2 + Q_2^2 b^2 + R_2^2 c^2 + 2P_2 Q_2 ab \cos \omega_3 + 2Q_2 R_2 bc \cos \omega_1 \\ & + 2R_2 P_2 ca \cos \omega_2. \end{aligned}$$

§ 2. *To find general expressions for the conditions which must be fulfilled, in order that a crystal should belong to any given system.*

Let the axes of the system sought, to which the crystal belongs, be a', b', c' , and the angles between the axes $\omega'_1, \omega'_2, \omega'_3$; let the axes to which the crystal has actually been referred be a, b, c , and the angles between them $\omega_1, \omega_2, \omega_3$, and let the symbols of the actual axes referred to the sought axes be

$$X_1, X_2, X_3, \quad Y_1, Y_2, Y_3, \quad Z_1, Z_2, Z_3.$$

We have then from the last §,

$$\lambda a^2 = X_1^2 a'^2 + X_2^2 b'^2 + X_3^2 c'^2 + 2 X_1 X_2 a' b' \cos \omega'_1 \\ + 2 X_2 X_3 b' c' \cos \omega'_1 + 2 X_3 X_1 c' a' \cos \omega'_1,$$

$$\lambda b^2 = Y_1^2 a'^2 + Y_2^2 b'^2 + Y_3^2 c'^2 + 2 Y_1 Y_2 a' b' \cos \omega'_1 \\ + 2 Y_2 Y_3 b' c' \cos \omega'_1 + 2 Y_3 Y_1 c' a' \cos \omega'_1,$$

$$\lambda c^2 = Z_1^2 a'^2 + Z_2^2 b'^2 + Z_3^2 c'^2 + 2 Z_1 Z_2 a' b' \cos \omega'_1 \\ + 2 Z_2 Z_3 b' c' \cos \omega'_1 + 2 Z_3 Z_1 c' a' \cos \omega'_1;$$

$$\lambda ab \cos \omega_3 = X_1 Y_1 a'^2 + X_2 Y_2 b'^2 + X_3 Y_3 c'^2 + (X_1 Y_2 + Y_1 X_2) \\ a' b' \cos \omega'_1 + (X_2 Y_3 + Y_2 X_3) b' c' \cos \omega'_1 + (X_3 Y_1 + Y_3 X_1) c' a' \cos \omega'_1,$$

$$\lambda bc \cos \omega_1 = Y_1 Z_1 a'^2 + Y_2 Z_2 b'^2 + Y_3 Z_3 c'^2 + (Y_1 Z_2 + Z_1 Y_2) \\ a' b' \cos \omega'_1 + (Y_2 Z_3 + Z_2 Y_3) b' c' \cos \omega'_1 + (Y_3 Z_1 + Z_3 Y_1) c' a' \cos \omega'_1,$$

$$\lambda ca \cos \omega_2 = Z_1 X_1 a'^2 + Z_2 X_2 b'^2 + Z_3 X_3 c'^2 + (Z_1 X_2 + X_1 Z_2) \\ a' b' \cos \omega'_1 + (Z_2 X_3 + X_2 Z_3) b' c' \cos \omega'_1 + (Z_3 X_1 + X_3 Z_1) c' a' \cos \omega'_1,$$

where λ is indeterminate.

If, now, the system be Monometric,

$$a' = b' = c', \quad \cos \omega'_1 = \cos \omega'_2 = \cos \omega'_3 = 0.$$

Introducing these conditions, and eliminating $\frac{a'^2}{\lambda}$, we obtain five conditions—

$$\frac{b^2}{a^2} = \frac{Y_1^2 + Y_2^2 + Y_3^2}{X_1^2 + X_2^2 + X_3^2}, \quad \frac{c^2}{a^2} = \frac{Z_1^2 + Z_2^2 + Z_3^2}{X_1^2 + X_2^2 + X_3^2};$$

$$\cos \omega_3 = \frac{X_1 Y_1 + X_2 Y_2 + X_3 Y_3}{\sqrt{(X_1^2 + X_2^2 + X_3^2)(Y_1^2 + Y_2^2 + Y_3^2)}},$$

$$\cos \omega_1 = \frac{Y_1 Z_1 + Y_2 Z_2 + Y_3 Z_3}{\sqrt{(Y_1^2 + Y_2^2 + Y_3^2)(Z_1^2 + Z_2^2 + Z_3^2)}},$$

$$\cos \omega_2 = \frac{Z_1 X_1 + Z_2 X_2 + Z_3 X_3}{\sqrt{(Z_1^2 + Z_2^2 + Z_3^2)(X_1^2 + X_2^2 + X_3^2)}}.$$

If nine integers, X_1, X_2 , &c., can be found satisfying the conditions, the crystal belongs to the first system.

$$\left(\begin{array}{cccc} a^2, & b^2, & c^2 & ab \cos \omega_1, \\ X_1^2 + X_2^2 + X_3^2, & Y_1^2 + Y_2^2 + Y_3^2, & Z_1^2 + Z_2^2 + Z_3^2, & X_1 Y_1 + X_2 Y_2 + X_3 Y_3, \\ & & & Y_1 Z_1 + Y_2 Z_2 + Y_3 Z_3, \\ & & & Z_1 X_1 + Z_2 X_2 + Z_3 X_3 \end{array} \right) = 0.$$

If the system be Dimetric,

$$a' = b', \quad \cos \omega'_1 = \cos \omega'_2 = \cos \omega'_3 = 0.$$

Introducing these conditions, and eliminating λ , a'^2 , and c'^2 , we obtain four conditions which may be symmetrically exhibited in the form

$$\left(\begin{array}{cccc} a^2, & b^2, & c^2, & ab \cos \omega_1, \\ X_1^2 + X_2^2, & Y_1^2 + Y_2^2, & Z_1^2 + Z_2^2, & X_1 Y_1 + X_2 Y_2, \\ X_3^2, & Y_3^2, & Z_3^2, & X_3 Y_3, \\ & & & Y_1 Z_1 + Y_2 Z_2, \\ & & & Z_1 X_1 + Z_2 X_2 \end{array} \right) = 0,$$

and if nine integers, X_1 , X_2 , &c., can be found fulfilling these four conditions, the system is Dimetric.

If the system be Trimetric,

$$\cos \omega'_1 = \cos \omega'_2 = \cos \omega'_3 = 0,$$

and eliminating a'^2 , b'^2 , c'^2 , and λ , we obtain three conditions, viz.,

$$\begin{array}{cccccc} a^2, & b^2, & c^2 & ab \cos \omega_3, & bc \cos \omega_1, & ca \cos \omega_2 \\ X_1^2, & Y_1^2, & Z_1^2 & X_1 Y_1, & Y_1 Z_1, & Z_1 X_1 \\ X_2^2, & Y_2^2, & Z_2^2 & X_2 Y_2, & Y_2 Z_2, & Z_2 X_2 \\ X_3^2, & Y_3^2, & Z_3^2 & X_3 Y_3, & Y_3 Z_3, & Z_3 X_3 \end{array} \Bigg\} = 0.$$

In the Rhombohedral or Hexagonal System,

$$a'^2 = b'^2 = c'^2, \quad \cos \omega'_1 = \cos \omega'_2 = \cos \omega'_3 = \cos \omega'.$$

Introducing these conditions, and eliminating λ , a'^2 , and $a'^2 \cos \omega'$, we obtain the four conditions, which are expressed by equating to 0, each one of the system of determinants whose columns are,

$$\begin{array}{ccc} a^2 & b^2 & c^2 \\ X_1^2 + X_2^2 + X_3^2 & Y_1^2 + Y_2^2 + Y_3^2 & Z_1^2 + Z_2^2 + Z_3^2 \\ 2(X_1 X_2 + X_2 X_3 + X_3 X_1), & 2(Y_1 Y_2 + Y_2 Y_3 + Y_3 Y_1), & 2(Z_1 Z_2 + Z_2 Z_3 + Z_3 Z_1), \\ ab \cos \omega_3 & & bc \cos \omega_1 \\ X_1 Y_1 + X_2 Y_2 + X_3 Y_3 & & Y_1 Z_1 + Y_2 Z_2 + Y_3 Z_3 \\ X_1(Y_2 + Y_3) + X_2(Y_3 + Y_1) + X_3(Y_1 + Y_2), & Y_1(Z_2 + Z_3) + Y_2(Z_3 + Z_1) + Y_3(Z_1 + Z_2), & \\ ca \cos \omega_2 & & \\ Z_1 X_1 + Z_2 X_2 + Z_3 X_3 & & \\ Z_1(X_2 + X_3) + Z_2(X_3 + X_1) + Z_3(X_1 + X_2). & & \end{array}$$

If the middle row be added to the last, this system appears more symmetrically as the system whose columns are,

$$\begin{array}{ccc} a^2 & b^2 & c^2 \\ X_1^2 + X_2^2 + X_3^2 & Y_1^2 + Y_2^2 + Y_3^2 & Z_1^2 + Z_2^2 + Z_3^2 \\ (X_1 + X_2 + X_3)^2, & (Y_1 + Y_2 + Y_3)^2, & (Z_1 + Z_2 + Z_3)^2, \\ ab \cos \omega_3 & & bc \cos \omega_1 \\ X_1 Y_1 + X_2 Y_2 + X_3 Y_3 & & Y_1 Z_1 + Y_2 Z_2 + Y_3 Z_3 \\ (X_1 + X_2 + X_3)(Y_1 + Y_2 + Y_3), & (Y_1 + Y_2 + Y_3)(Z_1 + Z_2 + Z_3), & \\ ca \cos \omega_2 & & \\ Z_1 X_1 + Z_2 X_2 + Z_3 X_3 & & \\ (Z_1 + Z_2 + Z_3)(X_1 + X_2 + X_3). & & \end{array}$$

In the Monoclinic system,

$$\cos \omega'_1 = \cos \omega'_2 = 0.$$

Introducing this condition, and eliminating λ , a'^2 , b'^2 , c'^2 , and $a' b' \cos \omega'_3$, we obtain the two conditions,

$$\left| \begin{array}{cccccc} a^2, & b^2, & c^2, & ab \cos \omega_3, & bc \cos \omega_1, & ca \cos \omega_2 \\ X_1^2, & Y_1^2, & Z_1^2, & X_1 Y_1, & Y_1 Z_1, & Z_1 X_1 \\ X_2^2, & Y_2^2, & Z_2^2, & X_2 Y_2, & Y_2 Z_2, & Z_2 X_2 \\ X_3^2, & Y_3^2, & Z_3^2, & X_3 Y_3, & Y_3 Z_3, & Z_3 X_3 \\ 2 X_1 X_2, & 2 Y_1 Y_2, & 2 Z_1 Z_2, & X_1 Y_2 + Y_1 X_2, & Y_1 Z_2 + Z_1 Y_2, & Z_1 X_2 + X_1 Z_2 \end{array} \right| = 0.$$

Finally, in the Diclinic System, $\cos \omega'_2 = 0$, and eliminating λ , a'^2 , b'^2 , c'^2 , $a' b' \cos \omega'_3$, and $b' c' \cos \omega'_1$, we obtain the single condition,

$$\left| \begin{array}{cccccc} a^2, & b^2, & c^2, & ab \cos \omega_3, & bc \cos \omega_1, & ca \cos \omega_2 \\ X_1^2, & Y_1^2, & Z_1^2, & X_1 Y_1, & Y_1 Z_1, & Z_1 X_1 \\ X_2^2, & Y_2^2, & Z_2^2, & X_2 Y_2, & Y_2 Z_2, & Z_2 X_2 \\ X_3^2, & Y_3^2, & Z_3^2, & X_3 Y_3, & Y_3 Z_3, & Z_3 X_3 \\ 2 X_1 X_2, & 2 Y_1 Y_2, & 2 Z_1 Z_2, & X_1 Y_2 + Y_1 X_2, & Y_1 Z_2 + Z_1 Y_2, & Z_1 X_2 + X_1 Z_2 \\ 2 X_2 X_3, & 2 Y_2 Y_3, & 2 Z_2 Z_3, & X_2 Y_3 + Y_2 X_3, & Y_2 Z_3 + Z_2 Y_3, & Z_2 X_3 + X_2 Z_3 \end{array} \right| = 0.$$

There is no difficulty in writing down the systems of conditions to be fulfilled if the Monoclinic or Diclinic Systems have three or two axes equal.

In the Triclinic System there is, of course, no condition to be fulfilled; but here, likewise, it is easy to obtain the conditions for two or three axes being equal.

It is to be observed that there is another mode, which sometimes gives much simpler results, of obtaining the conditions which are to be fulfilled in the various cases, viz.,

by expressing them in terms of the symbols of the sought axes referred to the actual axes. Let

$$\xi_1, \eta_1, \zeta_1, \xi_2, \eta_2, \zeta_2, \xi_3, \eta_3, \zeta_3,$$

be the symbols of the sought axes referred to the actual axes. We see, then, from § 1, that the condition that $\cos \omega'_3 = 0$ is

$$\begin{aligned} \xi_1 \xi_2 a^2 + \eta_1 \eta_2 b^2 + \zeta_1 \zeta_2 c^2 + (\xi_1 \eta_2 + \eta_1 \xi_2) ab \cos \omega_3 \\ + (\eta_1 \zeta_2 + \zeta_1 \eta_2) bc \cos \omega_1 + (\zeta_1 \xi_2 + \xi_1 \zeta_2) ca \cos \omega_2 = 0, \end{aligned}$$

and the condition that $a'^2 = b'^2$ is

$$\begin{aligned} \xi_1^2 a^2 + \eta_1^2 b^2 + \zeta_1^2 c^2 + 2 \xi_1 \eta_1 ab \cos \omega_3 + 2 \eta_1 \zeta_1 bc \cos \omega_1 \\ + 2 \zeta_1 \xi_1 ca \cos \omega_2 = \xi_2^2 a^2 + \eta_2^2 b^2 + \zeta_2^2 c^2 + 2 \xi_2 \eta_2 ab \cos \omega_3 \\ + 2 \eta_2 \zeta_2 bc \cos \omega_1 + 2 \zeta_2 \xi_2 ca \cos \omega_2. \end{aligned}$$

Make $a = b$, in the condition that $\cos \omega'_3 = 0$, and we obtain

$$\begin{aligned} (\xi_1 \xi_2 + \eta_1 \eta_2) a^2 + \zeta_1 \zeta_2 c^2 + (\xi_1 \eta_2 + \eta_1 \xi_2) a^2 \cos \omega_3 \\ + \{(\eta_1 \zeta_2 + \zeta_1 \eta_2) \cos \omega_1 + (\zeta_1 \xi_2 + \xi_1 \zeta_2) \cos \omega_2\} ac = 0. \end{aligned}$$

If we make

$$\zeta_1 = 0, \zeta_2 = 0; \quad \xi_1 \xi_2 + \eta_1 \eta_2 = 0, \quad \xi_1 \eta_2 + \eta_1 \xi_2 = 0,$$

this condition is fulfilled, and we obtain for the symbols of two axes at right angles to each other $(1, -1, 0)$ and $(1, 1, 0)$.

Hence, *If two axes of a crystal are equal, there exist two axes at right angles to each other.* The truth of the converse is readily proved in like manner, and both results are obvious geometrically.

§ 3. Mr. Miller has considered the problem of determining the new symbols of planes when the axes are transformed. As the treatment of this question by determinants possesses some elegance, it is given here.

Being given the symbols of three zone axes referred to three others, to determine the symbols of the latter referred to the former.

Let the symbols of the first set of zone axes referred to the latter be

$$X_1, X_2, X_3, \quad Y_1, Y_2, Y_3, \quad Z_1, Z_2, Z_3,$$

and let the symbols of the latter referred to the former be

$$\xi_1, \eta_1, \zeta_1, \quad \xi_2, \eta_2, \zeta_2, \quad \xi_3, \eta_3, \zeta_3.$$

Let the symbols of any plane referred to the first set be ϖ, χ, ρ , and referred to the latter be p_1, p_2, p_3 .

We have then from § 1,

$$p_1 X_1 + p_2 X_2 + p_3 X_3 = \lambda \varpi,$$

$$p_1 Y_1 + p_2 Y_2 + p_3 Y_3 = \lambda \chi,$$

$$p_1 Z_1 + p_2 Z_2 + p_3 Z_3 = \lambda \rho,$$

and

$$\varpi \xi_1 + \chi \eta_1 + \rho \zeta_1 = \mu p_1,$$

$$\varpi \xi_2 + \chi \eta_2 + \rho \zeta_2 = \mu p_2,$$

$$\varpi \xi_3 + \chi \eta_3 + \rho \zeta_3 = \mu p_3.$$

Solving the first set of equations for p_1, p_2, p_3 , and denoting the determinant

$$\begin{vmatrix} X_1 & X_2 & X_3 \\ Y_1 & Y_2 & Y_3 \\ Z_1 & Z_2 & Z_3 \end{vmatrix}$$

by D we obtain

$$p_1 = \lambda \left(\varpi \frac{dD}{dX_1} + \chi \frac{dD}{dY_1} + \rho \frac{dD}{dZ_1} \right),$$

with similar equations for p_2 and p_3 . Comparing with the second set of equations, and remembering that ϖ , &c., are the symbols of *any* plane of the system, we obtain

$$\xi_1 = \lambda \mu \frac{dD}{dX_1}, \quad \eta_1 = \lambda \mu \frac{dD}{dY_1}, \quad \zeta_1 = \lambda \mu \frac{dD}{dZ_1},$$

where λ and μ are indeterminate, with similar equations for the others.

The symbols of four planes referred to two sets of axes being given, to find the symbols of one set of axes referred to the other.

Let the symbols of the planes referred to the first set of axes be

$$p_1, q_1, r_1, \quad p_2, q_2, r_2, \quad p_3, q_3, r_3, \quad p_4, q_4, r_4.$$

and referred to the second set be

$$\varpi_1, \varpi'_1, \varpi''_1, \quad \varpi_2, \varpi'_2, \varpi''_2, \quad \varpi_3, \varpi'_3, \varpi''_3, \quad \varpi_4, \varpi'_4, \varpi''_4,$$

and let the symbols of the second set of axes referred to the first be

$$X, Y, Z, \quad X', Y', Z', \quad X'', Y'', Z'',$$

We have then from § 1,

$$p_1 X + q_1 Y + r_1 Z = \lambda_1 \varpi_1,$$

$$p_2 X + q_2 Y + r_2 Z = \lambda_2 \varpi_2,$$

$$p_3 X + q_3 Y + r_3 Z = \lambda_3 \varpi_3,$$

$$p_4 X + q_4 Y + r_4 Z = \lambda_4 \varpi_4;$$

$$p_1 X' + q_1 Y' + r_1 Z' = \lambda_1 \varpi'_1, \quad p_1 X'' + q_1 Y'' + r_1 Z'' = \lambda_1 \varpi''_1,$$

$$p_2 X' + q_2 Y' + r_2 Z' = \lambda_2 \varpi'_2, \quad p_2 X'' + q_2 Y'' + r_2 Z'' = \lambda_2 \varpi''_2,$$

$$p_3 X' + q_3 Y' + r_3 Z' = \lambda_3 \varpi'_3, \quad p_3 X'' + q_3 Y'' + r_3 Z'' = \lambda_3 \varpi''_3,$$

$$p_4 X' + q_4 Y' + r_4 Z' = \lambda_4 \varpi'_4; \quad p_4 X'' + q_4 Y'' + r_4 Z'' = \lambda_4 \varpi''_4.$$

If we take the first three equations, and solve for X, Y, Z , we have, calling the determinant

$$\begin{vmatrix} p_1 & q_1 & r_1 \\ p_2 & q_2 & r_2 \\ p_3 & q_3 & r_3 \end{vmatrix}, \quad D_1,$$

and the minors corresponding to p_1 , &c., P_1 , &c.,

$$D_1 X = \lambda_1 \varpi_1 P_1 + \lambda_2 \varpi_2 P_2 + \lambda_3 \varpi_3 P_3,$$

$$D_1 Y = \lambda_1 \varpi_1 Q_1 + \lambda_2 \varpi_2 Q_2 + \lambda_3 \varpi_3 Q_3,$$

$$D_1 Z = \lambda_1 \varpi_1 R_1 + \lambda_2 \varpi_2 R_2 + \lambda_3 \varpi_3 R_3.$$

If we take the first three in each of the two other sets, we obtain,

$$D_1 X' = \lambda_1 \varpi'_1 P_1 + \lambda_2 \varpi'_2 P_2 + \lambda_3 \varpi'_3 P_3, \text{ \&c.}$$

with similar expressions for X'' , &c.

If we now take the fourth equation in each set, and substitute for

$$X, Y, Z, \quad X', Y', Z', \quad X'', Y'', Z'',$$

the values just obtained, we get

$$\begin{aligned} \lambda_1 \varpi_1 (P_1 p_4 + Q_1 q_4 + R_1 r_4) + \lambda_2 \varpi_2 (P_2 p_4 + Q_2 q_4 + R_2 r_4) \\ + \lambda_3 \varpi_3 (P_3 p_4 + Q_3 q_4 + R_3 r_4) = D_4 \lambda_4 \varpi_4, \end{aligned}$$

with two other similar equations.

If we denote the determinants

$$(p_2, q_3, r_4), \quad (p_3, q_4, r_1), \quad (p_4, q_1, r_2)$$

by the symbols D_1, D_2, D_3 , these equations may be written

$$\lambda_1 \varpi_1 D_1 - \lambda_2 \varpi_2 D_2 + \lambda_3 \varpi_3 D_3 = \lambda_4 D_4 \varpi_4,$$

$$\lambda_1 \varpi'_1 D_1 - \lambda_2 \varpi'_2 D_2 + \lambda_3 \varpi'_3 D_3 = \lambda_4 D_4 \varpi'_4,$$

$$\lambda_1 \varpi''_1 D_1 - \lambda_2 \varpi''_2 D_2 + \lambda_3 \varpi''_3 D_3 = \lambda_4 D_4 \varpi''_4.$$

Solving for λ_1, λ_2 , and λ_3 , and calling the determinant

$$\begin{vmatrix} \varpi_1 & \varpi_2 & \varpi_3 \\ \varpi'_1 & \varpi'_2 & \varpi'_3 \\ \varpi''_1 & \varpi''_2 & \varpi''_3 \end{vmatrix}, \quad \Delta_4,$$

and the minors corresponding to ϖ_1, ϖ'_1 , &c., Π_1, Π'_1 , &c., we obtain

$$D_1 \Delta_4 \lambda_1 = \lambda_4 D_4 (\varpi_4 \Pi_1 + \varpi'_4 \Pi'_1 + \varpi''_4 \Pi''_1),$$

$$- D_2 \Delta_4 \lambda_2 = \lambda_4 D_4 (\varpi_4 \Pi_2 + \varpi'_4 \Pi'_2 + \varpi''_4 \Pi''_2),$$

$$D_3 \Delta_4 \lambda_3 = \lambda_4 D_4 (\varpi_4 \Pi_3 + \varpi'_4 \Pi'_3 + \varpi''_4 \Pi''_3).$$

If we call the determinants

$$(\varpi_2, \varpi'_3, \varpi''_4), \quad (\varpi_3, \varpi'_4, \varpi''_1), \quad (\varpi_4, \varpi'_1, \varpi''_2), \quad \Delta_1, \Delta_2, \Delta_3,$$

these equations may be written

$$D_1 \Delta_4 \lambda_1 = \lambda_4 D_4 \Delta_1, \quad \text{or} \quad \Delta_1 \lambda_1 = D_4 \lambda_4 \frac{\Delta_1}{D_1};$$

$$D_2 \Delta_4 \lambda_2 = \lambda_4 D_4 \Delta_2, \quad \text{or} \quad \Delta_2 \lambda_2 = D_4 \lambda_4 \frac{\Delta_2}{D_2};$$

$$D_3 \Delta_4 \lambda_3 = \lambda_4 D_4 \Delta_3, \quad \text{or} \quad \Delta_3 \lambda_3 = D_4 \lambda_4 \frac{\Delta_3}{D_3}.$$

Substituting for $\lambda_1, \lambda_2, \lambda_3$, in the equations already obtained for X, Y , &c., we have finally

$$\Delta_4 X = \lambda_4 \left(P_1 \varpi_1 \frac{\Delta_1}{D_1} + P_2 \varpi_2 \frac{\Delta_2}{D_2} + P_3 \varpi_3 \frac{\Delta_3}{D_3} \right),$$

$$\Delta_4 Y = \lambda_4 \left(Q_1 \varpi_1 \frac{\Delta_1}{D_1} + Q_2 \varpi_2 \frac{\Delta_2}{D_2} + Q_3 \varpi_3 \frac{\Delta_3}{D_3} \right),$$

$$\Delta_4 Z = \lambda_4 \left(R_1 \varpi_1 \frac{\Delta_1}{D_1} + R_2 \varpi_2 \frac{\Delta_2}{D_2} + R_3 \varpi_3 \frac{\Delta_3}{D_3} \right);$$

$$\Delta_4 X' = \lambda_4 \left(P_1 \varpi'_1 \frac{\Delta_1}{D_1} + P_2 \varpi'_2 \frac{\Delta_2}{D_2} + P_3 \varpi'_3 \frac{\Delta_3}{D_3} \right),$$

$$\Delta_4 Y' = \lambda_4 \left(Q_1 \varpi'_1 \frac{\Delta_1}{D_1} + Q_2 \varpi'_2 \frac{\Delta_2}{D_2} + Q_3 \varpi'_3 \frac{\Delta_3}{D_3} \right),$$

$$\Delta_4 Z' = \lambda_4 \left(R_1 \varpi'_1 \frac{\Delta_1}{D_1} + R_2 \varpi'_2 \frac{\Delta_2}{D_2} + R_3 \varpi'_3 \frac{\Delta_3}{D_3} \right);$$

$$\Delta_4 X'' = \lambda_4 \left(P_1 \varpi''_1 \frac{\Delta_1}{D_1} + P_2 \varpi''_2 \frac{\Delta_2}{D_2} + P_3 \varpi''_3 \frac{\Delta_3}{D_3} \right),$$

$$\Delta_4 Y'' = \lambda_4 \left(Q_1 \varpi''_1 \frac{\Delta_1}{D_1} + Q_2 \varpi''_2 \frac{\Delta_2}{D_2} + Q_3 \varpi''_3 \frac{\Delta_3}{D_3} \right),$$

$$\Delta_4 Z'' = \lambda_4 \left(R_1 \varpi''_1 \frac{\Delta_1}{D_1} + R_2 \varpi''_2 \frac{\Delta_2}{D_2} + R_3 \varpi''_3 \frac{\Delta_3}{D_3} \right),$$

where λ_4 remains indeterminate.

§ 4. In complicated solid figures it is not easy to investigate the relations of the faces directly, and still more difficult to represent them directly by a diagram. Two methods intimately connected together have been devised for obviating these difficulties. Mr. Miller has treated both these methods very fully, but it may not be out of place to reproduce some of his results here investigated in a manner slightly different from his, and to mention one or two points which are scarcely, or not at all, alluded to by him.

In the method of Neumann, a sphere is described round the origin as centre, and the relations between the points

in which normals to the faces meet the sphere, enable us to determine the relations between the faces themselves.

The most symmetrical figure having faces parallel to given planes is obtained by supposing the faces to be all tangent planes to the sphere. A vertex of the solid figure, through which any number of faces pass, will then lie on the right line joining the centre of the sphere to the centre of the small circle passing through the points of contact of the faces. Hence, if the positions of the points of contact, or poles of the faces, are known, the positions of the vertices are readily determined, as every set of three or more poles, lying on the same small circle, having no pole inside it, determines a vertex through which the corresponding faces pass.

The arcs between the poles are of the same number of degrees as the angles between the faces.

If it be desired to determine the figure of a face of the crystal, as bounded by the edges, it can readily be found from the arcs joining the pole of the face to the centres of the small circles to which it belongs, and the angles between them, as the tangents of these arcs are proportional to the right lines joining the point of contact of the face to the vertices through which it passes, and the angles between the right lines are the same as those between the arcs.

The most striking examples of the application of these principles are to be found in crystals of the first system.

The fundamental relation between the axes and a face of a crystal, leads readily to a corresponding relation between the arcs joining the pole of the face to the points in which the axes meet the sphere.

It is easily proved, by projecting the co-ordinates of any point on a plane, on the normal from the origin, that the equation of a plane referred to any axes is

$$x \cos \alpha + y \cos \beta + z \cos \gamma - p = 0,$$

where α, β, γ are the angles made by the normal with the axes. Comparing this with the equation of a crystalline face,

$$\frac{lx}{a} + \frac{my}{b} + \frac{nz}{c} = \mu,$$

we have

$$\frac{a \cos \alpha}{l} = \frac{b \cos \beta}{m} = \frac{c \cos \gamma}{n}.$$

If three fixed points, X, Y, Z , be taken on the surface of a sphere, and P be any point on a fixed great circle, $A \cos PX + B \cos PY + C \cos PZ = 0$, where A, B, C are constant.

Join P to the centre, and suppose a plane through the centre perpendicular to this line. Its equation is

$$x \cos PX + y \cos PY + z \cos PZ = 0.$$

Hence, if a fixed point on the perpendicular to the great circle on which P lies be taken, whose co-ordinates are A, B, C , we have

$$A \cos PX + B \cos PY + C \cos PZ = 0.$$

A, B, C are, then, proportional to the co-ordinates of the pole of the great circle on which P lies.

If P be the pole of a crystalline face, and X, Y, Z the extremities of the axes, the equation above becomes

$$\frac{A}{a}l + \frac{B}{b}m + \frac{C}{c}n = 0.$$

Hence, if two poles of faces lie on the same great circle, the co-ordinates of whose pole are ξ, η, ζ ,

$$\frac{\xi}{a}, \frac{\eta}{b}, \frac{\zeta}{c}$$

are proportional to whole numbers L, M, N , and the equation of the line joining the origin to the pole of the great circle is

$$\frac{x}{La} = \frac{y}{Mb} = \frac{z}{Nc}.$$

We thus reach the fundamental relation between zone axes already obtained in § 1.

In order to apply spherical geometry to zone axes, it is necessary to express the co-ordinates of the extremity of a zone axis, in terms of arcs on the sphere. This may be done as follows :—

Let $\varpi_1, \varpi_2, \varpi_3$ be the angles made by each axis with the plane of the other two; $\omega_1, \omega_2, \omega_3$, the angles between the axes. Since the sines of the perpendiculars of a spherical triangle are inversely proportional to the sines of the angles or sides, we have

$$\sin \omega_1 \sin \varpi_1 = \sin \omega_2 \sin \varpi_2 = \sin \omega_3 \sin \varpi_3.$$

Let ξ, η, ζ be the co-ordinates of the extremity T of a zone axis, whose symbols are T_1, T_2, T_3 ; A, B, C , the poles of the co-ordinate planes, and r the distance of (ξ, η, ζ) from the origin. Projecting on perpendiculars to each of the co-ordinate planes, we have

$$\xi \sin \varpi_1 = r \cos TA, \quad \eta \sin \varpi_2 = r \cos TB, \quad \zeta \sin \varpi_3 = r \cos TC,$$

or, from the equations above,

$$\xi = \lambda \sin \omega_1 \cos TA, \quad \eta = \lambda \sin \omega_2 \cos TB, \quad \zeta = \lambda \sin \omega_3 \cos TC,$$

where λ is a multiplier which it is unnecessary to determine. Substituting for ξ, η, ζ , their values, we have, finally,

$$T_1 a = \lambda \sin \omega_1 \cos TA, \quad T_2 b = \lambda \sin \omega_2 \cos TB,$$

$$T_3 c = \lambda \sin \omega_3 \cos TC.$$

It appears, from these equations, that the angles between a zone axis and the normals to any three planes of the crystalline system, are subject to a relation similar to that which exists between the angles made by a normal with three zone axes.

Hence, it is easy to prove that, *If three normals be taken as axes of co-ordinates, the equations of any other normal are similar to those of a zone axis referred to three other zone axes.*

For we have already seen that O , being the origin, A, B, C , three points on a sphere, and P any point on a great circle, the co-ordinates of whose pole, referred to OA, OB, OC , are ξ, η, ζ ,

$$\xi \cos PA + \eta \cos PB + \zeta \cos PC = 0.$$

Now, let A, B, C be the extremities of three normals to faces of the crystal, and (ξ, η, ζ) the extremity of any other normal, then two zone axes can be taken, lying in the great circle of which (ξ, η, ζ) is the pole; and if their extremities be P and Q , and symbols $P_1, P_2, P_3, Q_1, Q_2, Q_3$, referred to the axes which are the intersections of the planes perpendicular to OA, OB, OC ,

$$\xi \cos PA + \eta \cos PB + \zeta \cos PC = 0,$$

$$\xi \cos QA + \eta \cos QB + \zeta \cos QC = 0;$$

but we have already seen that, a, b, c being the crystalline axes to which the symbols refer, and $\omega_1, \omega_2, \omega_3$, the angles between them,

$$P_1 a = \lambda \sin \omega_1 \cos PA, \quad P_2 b = \lambda \sin \omega_2 \cos PB,$$

$$P_3 c = \lambda \sin \omega_3 \cos PC;$$

$$Q_1 a = \lambda \sin \omega_1 \cos QA, \quad Q_2 b = \lambda \sin \omega_2 \cos QB,$$

$$Q_3 c = \lambda \sin \omega_3 \cos QC,$$

whence

$$\xi \frac{a}{\sin \omega_1} P_1 + \eta \frac{b}{\sin \omega_2} P_2 + \zeta \frac{c}{\sin \omega_3} P_3 = 0,$$

$$\xi \frac{a}{\sin \omega_1} Q_1 + \eta \frac{b}{\sin \omega_2} Q_2 + \zeta \frac{c}{\sin \omega_3} Q_3 = 0;$$

whence $\xi \frac{a}{\sin \omega_1}$, &c., are proportional to whole numbers, and the equations of the normal referred to three other normals are of the form

$$\frac{x}{u_1 a'} = \frac{y}{u_2 b'} = \frac{z}{u_3 c'}, \text{ where } u_1 = \begin{vmatrix} P_2 & P_3 \\ Q_2 & Q_3 \end{vmatrix} \text{ \&c.,}$$

$$a' = \frac{\lambda \sin \omega_1}{a}, b' = \frac{\lambda \sin \omega_2}{b}, c' = \frac{\lambda \sin \omega_3}{c}.$$

On this result the method of Grassmann is founded, who takes as axes three normals, instead of three zone axes, and instead of the properties of a system of planes, investigates those of a system of lines, whose equations are of the form above.

It is obvious from what precedes, that a zone axis is not in general a normal of the crystalline system to which it belongs, but is a normal of another system, whose zone axes are normals of the first.

If we denote the position of a point P on a sphere, by three quantities, i, j, k , such that

$$\frac{a \cos PX}{i} = \frac{b \cos PY}{j} = \frac{c \cos PZ}{k},$$

where X, Y, Z are the intersections of the axes with the sphere, and a, b, c , their lengths, or the parameters of the crystal; when i, j, k are integers, the point will be a pole of the crystalline system.

Let us now suppose the point P to be the intersection of a zone axis (whose symbols are P_1, P_2, P_3) with the sphere, and let us seek the relation between P_1, P_2, P_3 , and i, j, k .

If ξ, η, ζ be the co-ordinates of any point on the zone axis, r its distance from the origin O , and α, β, γ , the angles POX, POY, POZ , we have, by projecting on the axis of x the closed polygon formed by ξ, η, ζ , and r ,

$$r \cos \alpha = \xi + \eta \cos \omega_3 + \zeta \cos \omega_2,$$

and similarly,

$$r \cos \beta = \xi \cos \omega_3 + \eta + \zeta \cos \omega_1,$$

$$r \cos \gamma = \xi \cos \omega_2 + \eta \cos \omega_1 + \zeta.$$

Substituting for ξ, η, ζ , in terms of P_1, P_2, P_3 , and for α, β, γ , in terms of i, j, k , and the axes, we have

$$\frac{i}{a} = \lambda (P_1 a + P_2 b \cos \omega_3 + P_3 c \cos \omega_2),$$

$$\frac{j}{b} = \lambda (P_1 a \cos \omega_3 + P_2 b + P_3 c \cos \omega_1),$$

$$\frac{k}{c} = \lambda (P_1 a \cos \omega_2 + P_2 b \cos \omega_1 + P_3 c).$$

From these equations it appears that, in the Orthogonal Systems,

$$i = \lambda P_1 a^2, \quad j = \lambda P_2 b^2, \quad k = \lambda P_3 c^2,$$

and in the Monometric System

$$i = \lambda P_1, \quad j = \lambda P_2, \quad k = \lambda P_3,$$

or, in this system, every zone axis is a normal. In the Rhombohedral System, $\omega_1 = \omega_2 = \omega_3 = \omega$, $a = b = c$; whence,

$$i = \lambda \{P_1 + (P_2 + P_3) \cos \omega\},$$

$$j = \lambda \{P_2 + (P_3 + P_1) \cos \omega\},$$

$$k = \lambda \{P_3 + (P_1 + P_2) \cos \omega\}.$$

Hence, if $P_1 = P_2 = P_3$, $i = j = k$, and the zone axis (111) coincides with the normal through the pole (111).

FRANCIS A. TARLETON.

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HERMATHENA.

ON THE PHILOSOPHICAL METHOD OF POLITICAL ECONOMY.

ADAM SMITH called his famous treatise an inquiry into the nature and causes of the wealth of nations. Mr. Senior defines political economy as the science which treats of the nature, the production, and the distribution of wealth. The definition in Mr. Mill's Principles of Political Economy is similar, though broader: "Writers on political economy profess to teach or to investigate the nature of wealth, and the laws of its production and distribution; including, directly or remotely, the operation of all the causes by which the condition of mankind, or of any society of human beings in respect to this universal object of desire, is made prosperous or the reverse."

These definitions sufficiently indicate the character of the problem of political economy—namely, to investigate the nature, the amount, and the distribution of wealth in human society, and the laws of coexistence and sequence discoverable in this class of social phenomena. The solution offered by the method hitherto chiefly followed

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by English economists—known as the abstract, *à priori*, and deductive method—may be briefly stated as follows. The nature of wealth is explained by defining it as comprising all things which are objects of human desire, limited in supply, and valuable in exchange. Of the causes governing its amount and distribution the chief exposition is, that the desire of wealth naturally leads, where security and liberty exist, to labour, accumulation of capital, appropriation of land, separation of employments, commerce, and the use of money; whence a continual increase in the total stock of wealth, and its distribution in wages, profit, rent, and the prices of products, in proportion to the labour, sacrifice, amount of capital, and quantity and quality of land, contributed by each individual to production. It is added that, inasmuch as human fecundity tends to augment population in a geometrical ratio, while the productiveness of the soil is limited, the proportion of rent to wages and profit tends to increase in the progress of society.

This theory, it is here submitted, is illusory as a solution of the problem. It throws, in the first place, hardly any light on the *nature* of wealth. There is a multitude of different kinds of wealth, differing widely in their economic effects. Land, houses, furniture, clothing, implements, arms, ornaments, animals, corn, wine, money, pictures, statues, books, are but a few of the different kinds of wealth; and of each kind there are various species. No inconsiderable part of the present wealth of the United Kingdom consists of intoxicating drink. Wealth, moreover, undergoes great changes in kind in different states of society, and one of the most important features of economical history is the evolution of new kinds, profoundly affecting the material as well as the moral condition of nations. The wealth of Rome under the Cæsars differed from its wealth in the first age of the Republic, in quality as well

as quantity; and there are essential differences, as well as resemblances and historical relations, between the constituents of medieval and modern wealth. Some of the fundamental distinctions between Oriental and European wealth have been vividly brought before us in the last few months. One of these is that the movable wealth of rich men in the East consists chiefly of precious stones, gold and silver ornaments, and splendid apparel. An English writer long ago described a religious ceremony in Turkey, at which a prince of eleven years old "was so overloaded with jewels, both on himself and his horse, that one might say he carried the value of an empire about him." That is to say, the wealth which might have made a territory prosperous, and been distributed in wages through many hundred families, was concentrated on the bodies of a child and a horse. The correspondent of the *Times* recently remarked on the appearance of the officers of an Indian municipality: "It would have rather astonished the members of an English Town Council to have seen these Punjabees in turbans of the finest tissue, gold-brocaded gowns, and robes, with coils of emeralds, rubies, and pearls round their necks, finer than any Lord Mayor's chain." This allusion to the surviving finery of English official dress illustrates a change which has taken place since the French Revolution in the ordinary dress of men in Western Europe. Another description of a reception of native chiefs at Calcutta a few months ago seems to give indication of the beginning of a similar change in India. While one Maharajah "dressed in black satin and silver lace, wore a cap which was literally covered with diamonds, said to be worth £100,000," and another was "resplendent in a dress of mauve embroidered with gold," Holkar and Sir Salar Jung "presented a striking contrast from the extreme simplicity of their attire." It is no unimportant example of the mutation in the nature of wealth,

in the progress of society, that diversities exist in Western Europe, in respect of splendour and costliness of apparel, between masculine and feminine wealth, which did not manifest themselves conspicuously before the present century. The accounts of the dresses of the princes and nobles of India during the Prince's visit read like one of the dresses of a number of great ladies at a London ball; but even in England, the fashion of wearing silks, satins, velvets, diamonds, and jewels, was formerly not confined to one sex. There was a time when men "wore a manor on their backs." The remark of Addison in the *Spectator* that "one may observe that women in all ages have taken more pains than men to adorn the outside of their heads" is inaccurate. An Eastern Prince still sometimes wears precious stones on his turban to the value of half a million; and probably no lady ever wore such a weight of diamonds as the Schah of Persia displayed in London. It is at least conceivable that the attire of an English lady may one day rival in simplicity and inexpensiveness that of a gentleman. The wealth of all but the stationary part of mankind of both sexes undergoes various changes in the nature as well as in the number of its constituents; and the differences and changes in the character of Eastern and Western, medieval and modern, masculine and feminine wealth, of which some indications have been given, ought surely to meet with investigation, as regards both cause and effect, in a true Science of Wealth. The definition already referred to, that wealth comprehends all things which possess exchangeable value, is a mere abstraction throwing no light on these differences and mutations, or on the laws of society and social evolution by which they are governed. It originated in opposition to the Mercantile theory, and amounts in fact to little more than a negation of the doctrine, erroneously imputed to the Mercantile School, that money only is wealth. What

that school really taught was that money is the most durable and generally useful kind of movable wealth, and their chief error lay in the measures by which they sought artificially to increase its amount. Money really had acquired great additional usefulness by its substitution for barter and payments in kind, and by the extension of international trade; and money is one of the kinds of wealth the invention and variations of which form a most instructive chapter in economical history. Adam Smith, it should be observed, did not fall into the error of later antagonists to the Mercantile theory. His doctrine was that wealth consists chiefly, not in money, but in consumable commodities; in the necessities, conveniences, and luxuries of life. Although he did not systematically investigate the subject, he has in several passages indicated important differences in the economic effects of different sorts of wealth, and pointed out some essential changes which have taken place in its component elements, in the progress of society.

Closely connected with the illusory exposition of the nature of wealth to which attention has been drawn is the doctrine of abstract political economy, that the mental principle which leads to its production and accumulation is "the desire of wealth." No other branch of philosophy is still so deeply tinctured with the realism of the schools as economic science. A host of different things resemble each other in a single aspect, and a common name is given to them in reference to the single feature which they have in common. It is, properly speaking, only an indication of this common feature, but it puts their essential differences out of mind, and they come to be thought of in the lump as one sort of thing. The desire of wealth is a general name for a great variety of wants, desires, and sentiments, widely differing in their economical character and effect, undergoing fundamental changes in some respects, while preserving

an historical continuity in others. Moralists have fallen into a similar error, though from an opposite point of view, and, in their horror of an abstraction, have denounced under the common name of love of wealth, the love of life, health, cleanliness, decency, knowledge and art, along with sensuality, avarice, and vanity. So all the needs, appetites, passions, tastes, aims and ideas which the various things comprehended in the word wealth satisfy, are lumped together in political economy as a principle of human nature which is the source of industry and the moving principle of the economic world.* "That every man desires to obtain additional wealth, with as little sacrifice as possible, is in political economy," says Mr. Senior, "what gravitation is in Physics, or the *dictum de omni et nullo* in Logic, the ultimate fact beyond which reasoning cannot go, and of which almost every other proposition is merely an illustration." The division of labour, the process of exchange, and the intervention of money, have made abstract wealth or money appear to be the motive to production, and veiled the truth that the real motives are the wants and desires of consumers; the demands of consumers determining the commodities supplied by producers. After all the reproach cast on the Mercantile School, modern economists have themselves lapsed into the error they have imputed to it. If every man produced for himself what he desires to use or possess, it would be patent and palpable how diverse are the motives summed up in the phrase "desire for wealth," motives which vary in different individuals, different classes, different nations, different sexes, and different states of society. Hunger and thirst were the first forms of the desire of wealth. A desire for cattle is its principal form at the next social stage. A desire for land comes

*More than thirteen years ago I endeavoured to draw attention to the error of both economists and moralists

on this subject, in an essay on the Love of Money, in the *Exchange*, November, 1862.

into existence with agriculture, but the desire for land is itself a name for different feelings, aims, and associations in different ages, countries, classes, and individuals; producing at this day widely different effects in two countries so close to each other as England and France. Adam Smith's historical and inductive mind here again preserved him from the realistic error. He has even attempted to indicate the actual order in which the desires of wealth succeed one another in the progress of history, and although his generalizations on this point are scanty and inaccurate, they ought to have suggested a fruitful line of investigation to his followers, and doubtless would have done so but for the dominion over their minds which the abstract method acquired. His illustrious successor, John Stuart Mill, has indeed made some instructive observations on the point in the Preliminary Remarks of his Principles of Political Economy, but he had been brought up in the straitest sect of the abstract economists, and his method was formed before his mind was matured; so that there is no systematic application of historical and inductive investigation in his treatise, although it abounds in luminous suggestions, and corrections of the crude generalizations of the school in which he was taught. An investigation of the diverse and varying desires confounded in the phrase "desire of wealth" would be requisite, were we even, with some of that school, to regard political economy as a mere theory of exchanges and value. For the value of commodities rises and falls with changes in the degree and direction of these desires. Both in England and France, the love of land, for example, raises its price out of proportion to the income it yields, but this may not always be, as it has not always been, the case; or, on the contrary, it may display itself hereafter in increased price. At this day it is a national passion in France, but felt only by a limited number in England. Works of art, again, undergo extra-

ordinary variations in value with the currents of fashion and taste : and diamonds would lose almost all their value, were the indifference towards them, already felt by one sex in this country, to extend to the other, and to become general throughout the world.

It is true that a love of accumulation or of property, an acquisitive propensity, a desire for wealth apart from its immediate or particular uses, is a principle of social growth of which the economist must take account. But this principle opens up another neglected chapter in the science of wealth, for the love of property, or of accumulation, takes very different concrete forms in different states of society. Were there no division of labour, it would take forms—land, cattle, houses, furniture, clothing, jewels, &c.,—determined by the existing or anticipated wants of the accumulator himself, or his family. In the actual commercial world in which we live, its forms are determined, either by the wants and demand of other consumers, or the accumulator's own desires, anticipations and associations. The holder of a share in a mine may never see his investment, and may have no desire for the coal, iron or silver it contains, yet the form of his accumulation is determined by the demand for these particular kinds of wealth on the part of surrounding society.

The questions we have been discussing are immediately connected with the conditions which govern the *amount* of wealth. The abstract theory on this subject is of the most fragmentary character. It exists only in the form of a few propositions and doctrines, such as that under the influence of the desire of wealth, human energy and effort are constantly devoted to its acquisition ; that its amount is largely augmented by the division of labour ; that of the three great instruments of production, the supply of two, labour and capital, tends to increase, but that of the third, land, remains stationary, while its productiveness tends to decrease

with the growth of population ; that wealth is increased by productive and diminished by unproductive expenditure and consumption. The first of these propositions really throws as little light on the amount, as on the nature, of wealth. The desire for it is by no means necessarily an incentive to industry, and still less to abstinence. War, conquest, plunder, piracy, theft, fraud, are all modes of acquisition to which it leads. The robber baron in the reign of Stephen, and the merchant and the Jew whom he tortured, may have been influenced by the same motives. The prodigal son who wastes his substance in riotous living is influenced by the same motives—the love of sport, sensual pleasure, luxury, and ostentatious display—which impel many other men to strenuous exertion in business. Good cheer, meat, beer, and tobacco, are the chief inducements to labour with the majority of working men, and to beggary and crime with another part of the population. Unproductive expenditure and consumption, on the other hand, do not necessarily tend to diminish wealth. They are the ultimate incentives to all production, and without habits of considerable superfluous expenditure, as Mr. Senior himself has observed, a nation would be reduced to destitution. Moreover, the effect of expenditure on the amount of wealth depends on the direction which it takes, for example, whether of services and perishable commodities, or on the contrary, of durable articles. Here, once more, Adam Smith opened the way to a line of investigation which abstract political economy afterwards closed. He observed that a man of fortune may spend his revenue, either in a profuse and sumptuous table, or in maintaining a great number of menial servants and a multitude of dogs and horses, or in fine clothes, or in jewels and baubles ; or, again, in useful and ornamental buildings, furniture, books, statues, pictures. “Were two men of equal fortune to spend their revenue, the one chiefly in the

one way, the other in the other, the former would, at the end of the period, be the richer man of the two : he would have a stock of goods of some kind or other. As the one mode of expense is more favourable than the other to the opulence of an individual, so is it likewise to that of a nation. The houses, the furniture, the clothing of the rich become useful to the inferior and middling ranks of the people." Consumption and expenditure in abstract political economy have become misleading terms. Both have come to denote the using up and destruction of things, whereas expenditure properly denotes simply the purchase, and consumption simply the use, of the articles in question. If the things purchased be of a durable kind, unproductive consumption so called may amount in reality to a form of accumulation. It was, in fact, one of the chief forms down to recent times. In the fifteenth century, and long afterwards, one of the chief modes of laying by for a man's wife and family was the purchase of plate, furniture, household stuff, and even clothing. Some modes of expenditure, although intended simply as such, may be actually productive, as in the case of articles which, like rare works of art, or land for purposes of enjoyment and amusement, acquire increased value with time and the growth of surrounding wealth. Even a stock of wine in a private cellar may, on the death of the owner, prove to have been a good investment for his family. The main questions respecting the influence alike of the "desire of wealth," and of expenditure and consumption are—to what kinds of wealth, what modes of acquisition, and what actual uses do they lead in different states of society, and under different institutions, and other surrounding conditions? To what laws of social evolution are they subject in the foregoing respects? On these points we learn nothing from abstract political economy. A distinguished English economist and man of science, has lately admitted, in the following passage, the

absolute necessity for a true theory of consumption : “ We, first of all, need a theory of the consumption of wealth. Mr. J. S. Mill, indeed, has given an opinion inconsistent with this. ‘ Political Economy,’ he says, ‘ has nothing to do with the consumption of wealth, further than as the consideration of it is inseparable from that of production, as from that of distribution. We know not of any laws of the consumption of wealth, as the subject of a distinct science of wealth ; they can be no other than the laws of human enjoyment.’ But it is surely obvious that political economy does rest upon the laws of human enjoyment. We labour to produce with the object of consuming, and the kinds and amounts of wealth must be governed entirely by our requirements. Every manufacturer knows and feels how closely he must anticipate the tastes and needs of his customers, his whole success depends upon it, and in like manner the whole theory of Economy depends upon a correct theory of consumption.”* No such theory, however, respecting the effect of consumption on either the nature or the amount of wealth can be forthcoming without a study of the history and the entire structure of society, and the laws which they disclose.

But further, in order to form any approach to an adequate estimate of the influence of human desires on the amount of wealth, it must surely be evident that we need an investigation, not only of the motives and impulses which prompt to the acquisition of wealth, but also of those which withdraw men from its pursuit, or give other directions to their energies. What abstract political economy has to teach on this subject is stated by Mr. Mill in his *Essay on the Definition and Method of Political Economy*, and also in his *Logic*, as follows :

“ Political economy is concerned with man solely

* *The Theory of Political Economy.* By William Stanley Jevons. Pp. 46-7.

as a being who desires to possess wealth. It makes entire abstraction of every other human passion or motive; except those which may be regarded as perpetually antagonising principles to the desire of wealth, namely, aversion to labour, and desire of the present enjoyment of earthly indulgences. These it takes to a certain extent into its calculation, because these do not merely, like other desires, occasionally conflict with the pursuit of wealth, but accompany it always as a drag or impediment, and are therefore inseparably mixed up in the consideration of it." Abstraction has here clouded the reasoning of the most celebrated logician of the century. Had Mr. Mill looked to actual life, he must have at once perceived that among the strongest desires confounded in the abstract "desire of wealth," are desires for the present enjoyment of luxuries; and that the aversion to labour itself has been one of the principal causes of inventions and improvements which abridge it. Frugality, as Adam Smith has observed, has never been a characteristic virtue of the inhabitants of England; commodities for immediate consumption and luxuries have always been the chief motives to exertion on the part of the bulk of the English population. The love of ease is the motive which has led to the production of a great part of household furniture, and is one of the chief sources of architecture.

"A great part of the machines," says Adam Smith, "made use of in those manufactures in which labour is most subdivided were originally the inventions of common workmen who naturally turned their thoughts towards finding out easier and readier methods of performing it. . . One of the greatest improvements (in the steam engine) was the discovery of a boy who wanted to save his own labour." By what logical principle, moreover, can economists justify the admission of "two antagonising principles" into their theory, while excluding or ignoring

others? In fact no economist has ever been able to limit his exposition in this manner. Mr. Mill in his own Principles of Political Economy follows Adam Smith in including in his doctrine of the causes which govern the choice of occupations, and the rates of wages and profit, many other motives, such as the love of distinction, of power, of rural life, of certain pursuits for their own sake, of our own country, the consequent indisposition to emigrate, &c.

The real defect of the treatment by economists of these other principles is, that it is superficial and unphilosophical; that no attempt has been made even to enumerate them adequately, much less to measure their relative force in different states of society; and that they are employed simply to prop up rude generalizations for which the authority of "laws" is claimed. They serve, along with other conditions, to give some sort of support to saving laws,—such as "allowing for differences in the nature of different employments," "*ceteris paribus*," "in the absence of disturbing causes," "making allowance for friction"—by which the "law" that wages and profits tend to equality eludes scrutiny. Had the actual operation of the motives in question been investigated, it would have been seen to vary widely in different states of society, and under different conditions. The love of distinction or of social position, for example, may either counteract the desires of wealth, or greatly add to their force as a motive to industry and accumulation. It may lead one man to make a fortune, another to spend it. At the head of the inquiry into the causes on which the amount of the wealth of nations depends is the problem—what are the conditions which direct the energies and determine the actual occupations and pursuits of mankind in different ages and countries? A theory surely cannot be said to interpret the laws regulating the amount of wealth, which takes no account, for instance, either of the

causes that make arms the occupation of the best part of the male population of Europe at this day, or, on the other hand, of those which determine the employments of women.

Enough has been said in proof that the abstract *a priori* and deductive method yields no explanation of the causes which regulate either the nature or the amount of wealth. With respect to *distribution*, it furnishes only a theory of exchange (or of wages, profits, prices, and rent) which will be hereafter examined. The point calling for immediate attention is, that such a theory, even if true, must be altogether inadequate to explain the distribution of wealth. One has but to think of the different partition of land in England and France, of the different partition of real and personal property in England, of the different partition of both between the two sexes, of the influence of the State, the Church, the Family, of marriage and succession, to see its utter inadequacy. Take land, for example. Sir Henry Maine has justly observed that exchange lies historically at the source of its present distribution in England to a greater extent than most modern writers on the subject seem aware. The purchase and sale of land was active, both in the Middle Ages and in the age of the Reformation; and the original root of the title of the existing holder, in a vast number of cases, is a purchase either in those ages or since. But it is only by historical investigation that we can mount up in this manner to purchase; and the present distribution of land, descending from such a source, is none the less the result of another set of causes, among which that great historical institution, the Family, which has never ceased to be one of the chief factors in the economy of human society, holds a principal place.

The truth is, that the whole economy of every nation, as regards the occupations and pursuits of both sexes, the nature, amount, distribution and consumption of wealth,

is the result of a long evolution in which there has been both continuity and change, and of which the economical side is only a particular aspect or phase. And the laws of which it is the result must be sought in history and the general laws of society and social evolution.

The succession of the hunting, pastoral, agricultural and commercial states is commonly referred to as an economic development, but it is, in fact, a social evolution, the economical side of which is indissolubly connected with its moral, intellectual, and political sides. To each of these successive states there is a corresponding moral and intellectual condition with a corresponding polity. With the changes from savage hunting life to that of the nomad tribe, thence to fixed habitations, and the cultivation of the soil, and thence to the rise of trade and towns, there are changes in feelings, desires, morals, thought and knowledge, in domestic and civil relations, and in institutions and customs, which show themselves in the economic structure of the community, and the nature, amount, and distribution of its wealth.

The celebrated German economist, Wilhelm Roscher, has remarked that every economical system has a corresponding legal system as its background; but the more general proposition may be advanced that every successive phase of social progress presents inseparably connected phenomena to the observation of the economist, the jurist, the mental, the moral, and the political philosopher. The same institutions—marriage, the Family, landed property, for example—may be regarded from a moral, a legal, a political, or an economical point of view. Both an intellectual and a moral evolution is visible in the successive modes of satisfying human wants,—by hunting and cannibalism; by the domestication of animals, with slavery instead of the slaughter of captured enemies; by agriculture, with serfdom gradually superseding slavery;

and by free industry and commerce, instead of conquest and piracy. And it may be affirmed that the means by which wealth is acquired in successive states of society are subject to regular laws of social evolution, as a whole, although only in the earlier stages is their operation easily traced. Slavery would exist in England at this day but for the co-operation of moral and political, with what are specially termed economical, causes. The successive evolution of the hunting, pastoral, agricultural and commercial states is intimately connected with "the movement from status to contract," to employ Sir Henry Maine's appropriate formula; one which affords striking evidence of the indissoluble nature of the connexion between the moral, intellectual, legal, political and economical phases of social progress. Sir H. Maine has considered it chiefly in its legal aspects, but it is easily shown to involve the other aspects referred to. To that primitive state in which there are no individual rights, in which the legal position of every one—law then appearing in the embryo form of usage—is determined by blood, birth and sex, there is a corresponding polity, that is to say, a rude tribal organisation, not without analogy to that of a herd of wild animals; and there is a correlative economic structure, limiting individual possession to certain articles of personal use, recognising no property in land, making sex and age the sole bases of division of labour, and leading to no exchanges between individuals. The moral condition is of a corresponding type. Communism in women is one of its original features; another is an entire absence of the feeling of individual responsibility. Tribes and groups of kinsfolk collectively are responsible for offences.

The intellectual state is strictly analogous. There is no mental individuality, no originality, or invention; all think as well as act and live alike. The savage is a savage in his intellectual development and ideas, as in his

als, his institutions, and his economy. The movement from status to contract, on the other hand, evolves not only individual property from communal ownership, and rights based on individual agreement from the transactions of whole communities of families, but also individual responsibility and individuality of thought and invention. It is likewise inseparably connected with a political development, with the gradual growth of a central government, and the substitution of the control of the state for that of the family or kindred. Every institution relating to property, occupation and trade, evolved by this movement, is economic, as much as a legal, phenomenon. Changes in the law of succession, the growth of the testamentary power, the alienability of land, its liability for debt, are economical, as well as juridical, facts; they involve changes in the economical structure of society, and in the amount and distribution of wealth. And every successive intellectual discovery, every new employment of the mental energy, has its part in determining the economical condition of the nation. *A priori* political economy has sought to deduce the laws which govern the directions of human energies, the division of employments, the modes of production, and the amount, amount and distribution of wealth, from an assumption respecting the course of conduct prompted by individual interest; but the conclusion which the study of history makes every day more irresistible is, that the germ in which the existing economy of every nation has been evolved is not the individual, still less the mere personification of an abstraction, but the primitive community—a community one in blood, property, thought, moral responsibility and manner of life; and that individual interest itself, and the desires, aims, and pursuits of every man and woman in the nation have been moulded by, and received their direction and form from, the history of that community.

Both the desires of which wealth of different kinds is the object, and those which compete with them, are in every nation the results of its historical career, and state of civilization. What are called economical forces are not only connected with, but identical with, forces which are also moral and intellectual. The desires which govern the production, accumulation, distribution and consumption of wealth are passions, appetites, affections, moral and religious sentiments, family feelings, æsthetical tastes, and intellectual wants. The changes which Roman wealth underwent after the conquest of Asia Minor represent moral changes; the new desires of wealth which became dominant were gluttony, sensuality, cruelty, and ostentation. These moral changes, again, were inseparably connected with the political history of Rome, and they had intellectual aspects which the author of the *Dialogus de Oratoribus* has vividly portrayed. Allusion was made in an earlier page to the passion for jewels which distinguishes the men of the East from the men of the West, and this form of the desire of wealth has sprung mainly from the absence for many ages of the conditions essential to general prosperity, economic progress, and the accumulation of wealth in really useful forms. Where insecurity has long prevailed, not only are those aims and distinctions which take the place, with the growth of civilization, of personal display, prevented from emerging, but a desire is generated for the kinds of wealth which contain great value in a durable and portable form, and are easily hidden, easily removed in flight, and nothing the worse for being buried for months or years. The wealth of England at this day, it should be observed, although dissimilar in some essential respects to that of Asia, ancient Rome, and medieval Europe, displays also features of resemblance, alike to oriental, to classical, and to medieval wealth—for example, in architecture, both eccle-

siastical and civil, in the structure of landed property and the associations surrounding it, and in the surviving passion in women for jewellery—which are, in fact, historical features. Our wealth is historical wealth, has been made what it is by historical causes, and preserves visible traces of its history. How long a history lies behind the feelings with which land is regarded, and its price in the market, as well as behind its existing distribution! Our whole national economy is a historical structure, and in no other manner to be explained or accounted for.

Recent apologists for the *à priori* and abstract method of economic reasoning feel themselves constrained to confine its application to the most advanced stage of commercial society; they seem even prepared to concede its inapplicability to every country save England, and to confine it to the latest development of English economy. The position which they take up seems to be, that the social evolution, already referred to as a movement from status to contract, issues in an economy to which the assumptions and deductions of abstract theory respecting the tendencies of individual interest fit. In modern England, they say, there is such a commercial pursuit of gain, and such a consequent choice of occupations, as to effect a distribution of the produce of industry to which the doctrines of Ricardo respecting wages, profits, prices and rents may be fairly applied. They thus abandon at once the claim formerly made on behalf of political economy to the character of a universal science founded on invariable laws of nature. “Political Economy,” said Mr. Lowe only six years ago, “belongs to no nation, it is of no country. It is founded on the attributes of the human mind, and no power can change it.” It is now restricted by Mr. Bagehot to “a single kind of society—a society of competitive commerce, such as we have in England.”*

* Fortnightly Review, February, 1876.

The economic society which we behold in England, and which is the result of the social evolution referred to, is however one which displays on every side the influence of tradition, custom, law, political institution, religion and moral sentiment ; it is one in which the State, the Family, and even the Church are powerful elements directly and indirectly, and in which the pursuits of individuals, the nature and value of different kinds of wealth, the structure of trades and professions, are incapable of explanation apart from history. It is one in which, as Mr. Bagehot himself has remarked, "there are city families, and university and legal families—families where a special kind of taste and knowledge are passed on in each generation by tradition;" and in which the system even of banking and the money market is the product of a peculiar history. Not even looking exclusively to the purely commercial side of the English economical structure ; not even as a mere analysis of "business" or "commerce," in the narrowest sense, is the abstract theory which used to claim rank as a Science of Wealth able to hold its ground. It is, in fact, as inapplicable to the most advanced stage of commerce as to that primitive state of nature from which Ricardo deduced it, by a process which deserves a high place in the history of fallacies, and which was not present to Mr. Mill's mind when arguing that "no political economists pretend that the laws of wages, profits, values, prices, and the like, set down in their treatises would be strictly true, or many of them true at all, in the savage state."* The principal foundation of Ricardo's theory of value, prices, wages, and profits, is the assumption that "in the early stage of society the exchangeable value of commodities depends almost exclusively on the comparative quantity of labour expended on each. Among a

* Auguste Comte and Positivism. By J. S. Mill, p. 81.

nation of hunters, for example, it is natural that what is usually the produce of two days', or two hours', labour should be worth double of what is usually the produce of one day's or one hour's labour."* The minor premiss in his syllogism is the assumption that it is "natural" that in a tribe of savages things should exchange in proportion to the labour required to produce them; the major premiss is, that what is natural in the earliest, must be natural in the most advanced, state of society. The minor involves a *petitio principii*, and one entirely at variance with fact, for savages work only by fits, and have no measures of labour and sacrifice. The produce of the chase is determined largely by chance. Such exchanges as take place are of the special products of different localities, and between groups or communities, not individuals. If any exchanges took place between individuals within the community, they would obviously be governed, not by cost of production, but, like the exchange between Esau and Jacob, by the urgency of the respective needs of the parties. The major premiss, on the other hand, involves the fallacy of undistributed middle, the two states of society being entirely dissimilar. Thrown into a form less unfavourable to Ricardo's conclusion than the one he has himself given to it, his argument is, that in a small and stationary community—in which employments are few and simple, and every man knows all his neighbours' affairs, how much they make, how they make it, and can transfer himself to any more gainful employment than his own—the values of commodities and the earnings of individuals depend on labour and sacrifice; and therefore, in a great commercial nation in which there is an infinite sub-division of

* "That this is really the foundation of the exchangeable value of all things," he continues, "excepting those which cannot be increased by human

industry, is a doctrine of the utmost importance in Political Economy." Ricardo's Works, Principles of Political Economy, chap. i.

labour, an immense and ever increasing variety of occupations, incessant change in the modes of production and in the channels of trade, constant fluctuations in speculation, credit and values, and in which each man has enough to do to mind his own business,—wages, profits and prices, and the distribution of the gains of production are determined by the same principle, namely, the labour and sacrifice undergone by producers. It is the conclusion thus arrived at by Ricardo which Mr. Bagehot sets forth as the first fundamental assumption of abstract political economy, applied to advanced commercial society, though with an exception with respect to one sex which illustrates its essential weakness. “The assumption,” he says, “which I shall take is that which is perhaps oftener made in our economical reasonings than any other, namely, that labour (*masculine* labour I mean) and capital circulate within the limits of a nation from employment to employment, leaving that in which the remuneration is smaller, and going to that in which it is greater. No assumption can be better founded, as respects such a country as England, in such an economical state as our present one.” It is an assumption equally ill-founded with respect to both the extremes of economical progress, the earliest and the most advanced;—to the former, because there is no regular labour, no calculation of gain, and no exchange between individuals; to the second, because each of a vast multiplicity of occupations needs unremitting attention, and exchanges are infinitely numerous, and subject to perpetual variations in the conditions affecting them. Ricardo ignored both the homogeneousness of primitive, and the heterogeneousness of advanced, society; Mr. Bagehot ignores the infinite heterogeneousness of the latter. The assumption really made its only approach to truth in the intermediate economical stage to which Adam Smith expressly limited it, when he restricted

it to well-known and long-established employments, in the same neighbourhood, undisturbed by speculation or other causes of fluctuation, and between which there is perfect facility of migration*—in other words, to a small and stationary world of trade. Consider the complexity of the causes which, in the modern commercial world, affect the price of a single commodity, and judge of the possibility of estimating the relative profit to be made by the manufacture and sale of every article. The following passage, written by the most eminent living social philosopher, with no reference to political economy, will enable the reader to form some conception of the demand which the abstract economic assumption makes on his faith: “The extreme complexity of social actions, and the transcendent difficulty which hence arises, of counting on special results, will be still better seen if we enumerate the factors which determine one single phenomenon, the price of a commodity, say cotton. A manufacturer of calicoes has to decide whether he will increase his stock of raw material, at its current price. Before doing this, he must ascertain, as well as he can, the following data:—Whether the stocks of calico in the hands of manufacturers and wholesalers at home are large or small; whether by recent prices retailers have been led to lay in stocks or not; whether the colonial and foreign markets are glutted or otherwise; and what is now, and is likely to be the production of calico by foreign manufacturers. Having formed some idea of the probable demand for

* In order that this equality may take place in the whole of the advantages and disadvantages of the different employments of labour and stock, three things are requisite, even where there is the most perfect freedom. First, the employments must be well known and long established in the neighbourhood; secondly, they must be in their ordinary or natural state; and thirdly, they must be the sole or principal employments of those who occupy them. *Wealth of Nations*, Book i., c. 10.

calico, he has to ask what other manufacturers have done and are doing as buyers of cotton—whether they have been waiting for the price to fall, or have been buying in anticipation of a rise. From cotton-brokers' circulars he has to judge what is the state of speculation at Liverpool—whether the stocks there are large or small, and whether many or few cargoes are on their way. The stocks and prices at New Orleans and other cotton ports have also to be taken note of; and then there come questions respecting forthcoming crops in the States, in India, in Egypt and elsewhere. Here are sufficiently numerous factors, but these are by no means all. The consumption of calico, and therefore the consumption of cotton, and the price, depend in part on the supplies and prices of other textile products. . . . Surely the factors are now all enumerated? By no means. There is the estimate of mercantile opinion. The views of buyers and sellers respecting future prices, never more than approximations to the truth, often diverge from it widely. . . . Nor has he got to the end of the matter when he has considered all these things. He has still to ask, what are the general mercantile conditions of the country, and what the immediate future of the money market will be; since the course of speculation in every commodity must be affected by the rate of discount. See then the enormous complication of causes which determine so simple a thing as the rise or fall of a farthing per pound in cotton some months hence.”* To admit the assumption on which the abstract doctrine of the equality of profits rests—and on which, again, the doctrine of indirect taxation is based—one must be prepared to admit that men in business are able to make, and do make, similar calculations respecting every other commodity, and thus are enabled to estimate the relative profits of different businesses.

* The Study of Sociology. By Herbert Spencer, pp. 18–19.

The only verification adduced in support of the assumption is, that capital and labour desert employments *known* to be comparatively unremunerative for those which are known to yield better returns. Even this proposition is far from being universally true, and, if it proved the conclusion, would prove that the migration of labour from Europe to America must long ago have equalised European and American wages. Mr. Mill in stating the doctrine has granted that individual profits depend, among other things, "on the accidents of personal connexion and even on chance," adding, "that equal capitals give equal profits, as a general maxim of trade, would be as false as that equal age or size gives equal bodily strength, or that equal reading or experience gives equal knowledge." He supposed, however, that bankers and other dealers in money, by lending it to the more profitable trades, put the various employments of capital "on such a footing as to hold out, not equal profits, but equal expectations of profit." In like manner, Mr. Bagehot argues that "the capital of the country is by the lending capitalists transmitted where it is most wanted." If individual profits vary to the extent which Mr. Mill admitted, since there are no means of knowing what individual profits really are, it is hard to imagine how bankers and bill brokers can gauge the existing profits of different trades, and still harder to imagine how they can foreknow them. How much they really know of the matter has been recently exemplified by the transactions of banks and bill brokers in the cases of Messrs. Overend and Gurney, and Messrs. Collie and Co.* Mr. Bagehot himself, writing on the money market and

* On the failure of these firms a commercial writer observes: "The nation entrusted most of its floating capital to the bill brokers, and the public found that they had no check on their indiscre-

tion: . . . Bankers took the bills as security because bill brokers did, and hardly stopped to test the bills or to study their nature." — *The Rationale of Market Fluctuations*, pp. 52-3.

joint-stock banks, has observed: "The old private banks in former times used to lend much to private individuals; the banker formed his judgment of the discretion, the sense, and the solvency of those to whom he lent. And when London was by comparison a small city, and when by comparison everyone stuck to his proper business, this practice might have been safe. But now that London is enormous, and that no one can watch anyone, such a trade would be disastrous; it would hardly be safe in a country town."*

If there is one lesson which the history of trade and the money market in the last ten years ought to have brought home to us more clearly than another, it is that both the lending and the borrowing capitalists, both bankers and traders, are singularly ill-informed and short-sighted with respect even to the condition and prospects of their own business. The Deputy Governor of the Bank of England told a meeting of Turkish bondholders a few months ago, that he had gone into these bonds largely himself, and had advised others to do so. A man of business of considerable experience had asked my own opinion, as an economist, of that very security, and afterwards complained that I had dissuaded him from a good investment.

Such is the stability of the main proposition of abstract political economy. The nature of the superstructure built on it may be judged from the doctrine that all special taxes on production fall, not on the producer but on consumers, the former receiving the tax with "average" profit on its advance; although in fact the producer may make no profit, may never sell the articles taxed, may even be driven from the trade and ruined by the impost, as the last load which breaks the back of the camel, for taxation has notoriously contributed to drive the smaller capitalists

* Lombard-street. By Walter Bagehot. 6th ed., p. 251.

from several branches of business, for example, distilling and brewing. I must leave it to physicists, geologists, and naturalists to judge of the analogy for which Mr. Bagehot contends, of reasoning of this kind to the processes by which their sciences have been built up; nor may I attempt to pass judgment on the sufficiency of the method which Mr. Darwin in particular has followed. But where it is urged that the abstract economist, like Mr. Darwin, reasons deductively from "one *vera causa*,"* the rejoinder is obvious that the "desire of wealth," which in abstract political economy occupies the place of gravitation in astronomy, and of natural selection in Mr. Darwin's theory, so far from being a *vera causa*, is an abstraction, confounding a great variety of different and heterogeneous motives, which have been mistaken for a single homogeneous force; and that Mr. Darwin's hypothesis was based on many previous inductions, and followed by minute and elaborate verification, for which the sole substitute in political economy has been an *ignoratio elenchi*. Mr. Cairnes, indeed, emphasises in italics the proposition that "*the economist starts with a knowledge of ultimate causes*;"† adding: "He is already, at the outset of his enterprise, in the position which the physicist only attains after ages of laborious research. If anybody doubts this, he has only to consider what the ultimate principles governing economic phenomena are." First among these "ultimate principles" he places "the general desire for physical well-being, and for wealth as the means of obtaining it." Yet the desire for physical well-being is so far from being identical with the desire of wealth that they are often in direct antagonism to each other. And the title of such an abstraction as the desire for wealth to rank

* Fortnightly Review. February, 1876, p. 223.

† Logical Method, &c., p. 75.

as an ultimate principle has been, it is hoped, sufficiently refuted.

The abstract *à priori* method, it ought not to be overlooked, has almost entirely lost credit in Germany, and has never had undisputed possession of the field in either England or France. It is repudiated by M. de Laveleye, and by some of the most eminent economists in Italy. Malthus and Say, the two most eminent contemporaries of Ricardo, emphatically protested against it. Mr. J. S. Mill's treatise on the Principles of Political Economy often departs from it, and in his later writings he showed an increasing tendency to question its generalizations. Nor did the founders of political economy, either in England or France, intend to separate the laws of the economical world from the general laws of society. Their error lay in the assumption of a simple harmonious and beneficent order of nature, in accordance with which human wants and propensities tend to the utmost amount of wealth, happiness, and good. Mercier de la Rivière, whom Adam Smith calls the best expositor of the doctrines of the *Economistes*, entitled his work *L'Ordre Naturel et Essentiel des Sociétés Politiques*; and with Adam Smith himself political economy was part of a complete system of social philosophy, comprising also natural theology, moral philosophy, and jurisprudence. He regarded the economical structure of the world as the result of a social evolution, but the dominant idea of a natural order of things disposed him to dwell chiefly on "the natural progress of opulence;" and led him to regard its actual progress as "unnatural and retrograde" wherever it diverged from the imaginary natural order, in place of being the result of the real laws of nature at work. He followed nevertheless the historical, as well as the *à priori*, method, the latter being simply an offshoot of the eighteenth century theory of Natural Law; and the same language may

be used in reference to political economy, which Sir H. Maine has employed in describing the influence of that theory on jurisprudence: "It gave birth or intense stimulus to vices of mental habit all but universal, disdain of positive law, impatience of experience, and the preference of *à priori* to all other reasoning. . . . There is not much presumption in asserting that what has hitherto stood in the place of a science has, for the most part, been a set of guesses, the very guesses of the Roman lawyers."*

Ricardo's fundamental assumption is a "guess" respecting the natural principle regulating value and the distribution of wealth in the early stages of society, or in a state of nature; and he proceeds to determine by the same process the "natural" course of wages, profits, and prices in advanced society. In proof that every improvement in the processes of manufacture which abridges labour is attended with a corresponding fall in the price of the product, his argument is: "Suppose that, in the early stages of society, the bow and arrows of the hunter were of equal value and of equal durability with the canoe and implements of the fisherman, both being the produce of the same quantity of labour. Under such circumstances, the value of the deer, the produce of the hunter's day's labour, would be exactly equal to the value of the fish, the produce of the fisherman's day's labour. The comparative value of the fish and the game would be entirely regulated by the quantity of labour realized in each, whatever might be the quantity of production, or however high or low general wages or profits might be." To prove that profits are equalized in the modern world by the flow of capital into the more profitable trades, he resorts, in like manner, to

* Ancient Law, pp. 91-113.

a "guess :"—"It is perhaps very difficult to trace the steps by which this change is effected : it is *probably* by a manufacturer not actually changing his employment, but only lessening the quantity of capital he has in that employment." How far this conjecture was well founded, appears in his own words in the same chapter. "The present time appears to be one of the exceptions to the justice of this remark. The termination of the war has so deranged the division which before existed of employments in Europe, that every capitalist has not found his place in the new division which has now become necessary."

Mr. Cairnes defines political economy as "the science which traces the phenomena of the production and distribution of wealth up to their causes in the principles of human nature and the laws and events, physical, political and social, of the external world."* This process has been exactly reversed by the *à priori* and deductive method. The economist "starts," according to it, with the assumption of a "knowledge of ultimate causes," and deduces the phenomena from the causes so assumed. What has still to be done is to investigate the actual phenomena, and discover their ultimate causes in the laws of social evolution and national history. The bane of political economy has been the haste of its students to possess themselves of a complete and symmetrical system, solving all the problems before it with mathematical certainty and exactness. The very attempt shows an entire misconception of the nature of those problems, and of the means available for their solution. The phenomena of wealth may be made the subject of a special inquiry by a special set of inquirers, but the laws of co-existence and sequence by which they are governed must be sought in the great Science of Society, and by the methods which it holds out.

* Logical Method of Political Economy, 2nd ed., p. 57.

And that science itself is still in its infancy. Auguste Comte's System of Positive Philosophy (not his System of Positive Polity) is a work of prodigious genius, yet it did but suggest and illustrate, it did not create the science—that could not be done by a single mind, nor in his time; still less did it work out the connexion between the economic and the other phases of the social evolution. If Political Economy, under that name, be not now bent to the task, it will speedily be taken out of the hands of its teachers by Sociology.

Inadequate as is the exposition contained in this Essay, it is submitted as establishing, on the one hand, that the abstract and *à priori* method yields no explanation of the laws determining either the nature, the amount, or the distribution of wealth; and, on the other hand, that the philosophical method must be historical, and must trace the connexion between the economical and the other phases of national history. As regards the nature of wealth, it has been shown that essential differences in its kinds and constituents, profoundly affecting the economical condition of mankind, manifest themselves at different stages of progress, and that their causes must be sought in the entire state of society, physical, moral, intellectual, and civil. The amount of wealth has been proved to depend on all the conditions determining the direction and employments of human energies, as well as on the state of the arts of production, and the means of supply. And the distribution of wealth has been shown to be the result, not of exchange alone, but also of moral, religious, and family ideas and sentiments, and the whole history of the nation. The distribution effected by exchange itself demonstrably varies at different stages of social progress, and is by no means in accordance with the doctrines of *à priori* political economy. Every successive stage—the hunting, the pastoral, the agricultural, the commercial

stages, for example — has an economy which is indissolubly connected with the physical, intellectual, moral, and civil development; and the economical condition of English society at this day is the outcome of the entire movement which has evolved the political constitution, the structure of the family, the forms of religion, the learned professions, the arts and sciences, the state of agriculture, manufactures and commerce. The philosophical method of political economy must be one which expounds this evolution.

T. E. C. LESLIE.

STUDIES IN GREEK LITERATURE.

I. HESIOD.

GREAT as is the divergence of critics about the Homeric poems, it seems almost unanimity when we come to study the modern Hesiodic literature. Every possible theory, every possible dissection, every possible critical judgment has been upheld and refuted ; so that, after toiling through wildernesses of German books, and tracts, and programmes, one comes to the conclusion that nothing has been gained, nothing proved, and that the field is still open to plain common sense, as well as to the flights of fancy.

§ 1. The home of this distinct kind of Epic poetry, called *Didactic*, because of its occasionally moral and instructive tone, was not originally¹ a sea-coast, with bays, and promontories, and rocky islands, but the inland plain of Bœotia, surrounded on all sides by mountain chains, with rich arable soil in the plain, and barren pastures on the higher slopes; with great sedgy sheets of still water about the lowlands, and tumbling streams upon the hills. It was a climate, says the poet of the *Works and Days*, bad in winter, trying in summer, never good; and this he said, I suppose, contrasting it with what his father told him, or what he himself remembered of Æolic Kyme, upon the rich shore of Asia Minor, where the climate of old was wonderful

¹ I say *originally*, because Bergk follows the traditions of the poet's death, so far as to hold his ultimate settlement at Naupactus, and to call his school the Locrian School, of which the *ἑπὶ Ναυπάκτου* were a farther development.

even to the Greeks. But he has certainly exaggerated the faults of the climate, and said nothing of the richness of the soil.² No doubt the extremes of cold and heat were then greater than they now are, for in our time Bœotia is in spring and autumn one of the loveliest and fairest parts of Greece. The inhabitants came to be ridiculed in the days of Attic greatness for their dulness and stupidity, and famed for heavy eating, and these consequences were attributed to their moist and foggy climate. Such Attic jibes have been repeated with too much seriousness. The ancient worship of the Muses throughout Bœotia, the splendour of the art and culture of the old Minyans of Orchomenus, the great burst of lyric poetry in the days of the Persian wars, the splendid culture of Epaminondas, and through him of Philip, and lastly, the martinmas summer³ of Greek literature in Plutarch—all these facts, apart from the poetry now before us, show that Bœotia, as we might expect from its rich and well-watered soil, was not only an early home of wealth and civilization, but sustained its intellectual reputation all through Greek history.

Considering the *Works and Days* as the most certain product of the genuine Hesiod, we look in vain for any certain clue to the exact period of the poet's life. The only direct allusion is to his having journeyed

² It is worthy of note that Archilochus, with similar injustice, reviles the climate and soil of Thasos (Fr. 21, ed. Bergk), for Plutarch says:—καθάπερ Αρχιλοχος τῆς Θάσου τὰ καρποφόρα καὶ οἰνόπεδα παρορών διὰ τὸ τραχὺ καὶ ἀνώμαλον διέβαλε τὴν νῆσον, εἰπὼν

“Ἦδε δ' ὦστ' ὄνου βάχης

ἔστηκεν ὕλης ἀγρίης ἐπιστεφής·

οὐ γάρ τι καλὸς χῶρος οὐδ' ἐφ' ἡμερος

οὐδ' ἐρατός, οἶος ἀμφὶ Σίριος ποδός.

Plutarch might have said the very same

thing of Hesiod, unless, indeed, we hold that the plain of Thebes was covered with forest in his day, as is described in the Homeric Hymn to the Pythian Apollo.

³ Cf. Archbp. Trench's *Plutarch and his age*, p. 11, from which I gladly borrow the expression. Thus also Mr. Symonds aptly calls the *Hero and Leander* of Musæus the fair November day of Greek poetry.

to Chalcis in Eubœa for a poetical contest at the funeral games given for Amphidamas, at which he claims to have carried off the prize.⁴ But the only clue to the date of Amphidamas is that he was an active leader in the tedious war against the Eretrians about the Lelantine plain.⁵ This passage about the poetical tournament at Chalcis is accordingly declared spurious by most critics, and referred to some later Hesiodic bard, who was confused with his great predecessor, just as the old blind poet of Chios (in the Hymn to the Delian Apollo) was commonly confused with Homer. Setting aside, therefore, this hint, they are thrown back upon vaguer inferences.

The poet describes, not a monarchical, but an aristocratical government, as ruling over his native place. This Ascra was probably under the sway of Thespiæ, which sustained its monarchical government up to late days, and was even in Aristotle's time a remarkable example for citation. It is said that royalty was abolished at Thebes about the middle of the eighth century, B. C.; but it is doubtful whether Thebes then controlled a large district. The fact, it is thought, that Hesiod's father, Dius, came back from the Æolian settlements in Asia Minor—and that on account of poverty—shows that the colonies had been some time sent out; but not so long that discontented colonists had forgotten the way home, and the sense of unity with the motherland. But the poem is so full of evidences of interpolations, that many critics reject even this personal statement about the poet's parentage, and think that a later bard inserted it, in order to inform the readers of the poem of his own, or of the supposed author's life. From a

⁴ This contest is apparently transferred to Delos, and said to consist in singing hymns to Apollo, in Frag. 227. We shall return to this point some

day when speaking of the Hymns.

⁵ Cf. Götting's Pref., p. xxiii., who quotes Plutarch (*Conviv.*, c. 10), with additional details.

conservative point of view, the following seems to me the most reasonable theory as to the composition and date of the *Works and Days*.

It is an admitted fact, that about the beginning of the seventh century, B. C., the heroic Epics of the Greeks were supplanted by the poetry of real life—iambic satire, elegiac effusions of grief, gnomic wisdom, and proverbial philosophy. The Greeks grew tired of all the praise of courts and ladies, and bygone wars, and turned to a sober—nay, even exaggerated—realism, by way of reaction from the worship of Homeric rhapsody. The father and forerunner of all this school is clearly Hesiod, to whom the critics have found strong family likenesses in Archilochus, Simonides of Amorgos, and Hipponax; stronger evidences of imitation in Alcæus and Theognis in a later generation. The *Odyssey*, on the other side, both in the society which it describes—the lawless rule of an aristocratic oligarchy; in its catalogue of fair women—the prototype, or anti-type, of the Hesiodic *Eoiai*; still more, in the sober tone of its diction, and its enumerations of names—the 'Ἡσιόδειος χαρακτήρ κατ' ὄνομα of the Alexandrine critics—seems the forerunner, or perhaps the heroic expression, of this changing attitude in the public mind. The decisive turning point, to my mind a marked epoch in the history of Greek literature, is the great poetical contest at the funeral games of Amphidamas of Chalcis, when the Hesiodic poetry defeated its Homeric rival. This fact seemed so extraordinary to later critics, that, when they wrote the life of Hesiod, and the *Contest of Homer and Hesiod*, they sought to invent reasons—and very absurd ones—for such a result, and the judges (whose names were remembered¹) were held up to ridicule.*

* Πανέβρις ὄψεαι was a proverb for a foolish judgment, Pansicles, the bro-

ther of Amphidamas, being said to have been the judge on the occasion.

A more philosophical review of the development of Greek poetry shows such a result to be natural and necessary. The Greek public were wearied with so many weak and watery Epics, with so many faint imitations of the great originals, that even these lost their charm, and were a weariness to them. Then it was that a truly original poet turned his attention to the only real source of life in any literature—the songs and shrewd sayings of the people. He found old gnomes and advices about practical life, rules of agriculture and of morals, fused like the Roman lady's distaff and her chastity.¹ He recast them in an artistic form, retaining sufficient flavour of their rudeness to preserve their charm for audiences weary of heroic refinement. Thus arose the famous *Works and Days*, the great opponent of Homeric Epics; the parent of Greek gnomic poetry; the great handbook of moral teaching among Greek educators. But the man who gathered and systematized this old folk lore and folk wisdom—who interpolated Ionic features in a Bœotian subject—who tamed the rude dialect of the farmers on Helicon into an almost Epic style—who carried back Ionic memories to his rugged home—who won the tripod at the national contest of Chalcis,—who then settled near Naupactus, and died there—this was the real Hesiod. He was not removed by centuries from the poetry which directly followed his lead. He was rather the first of a close and continuous series of poets who took up his realism, though they freed it from its 'Helot' flavour, left out his husbandry and his addresses to rustics, and gave his ethics an aristocratic tone.

Even as to the Hesiod whom we possess, I am daily more sceptical about his being the poet of the lower classes,

¹ This we find in many Roman epigrams, e. g., those quoted by Mommsen, *Rom. Hist.*, vol. i., p. 61, note (Eng. Trans.)

and that his great originality was to address the people. No doubt many of the old proverbs and agricultural advices he gathered were current among the people ; but it is to be remarked that the poet distinctly addresses the princes also, and gives them a moral lecture (vv. 248, *sqq.*), and he looks upon their justice and good conduct as essential to the people, not only because they are its judges, but because their sins are visited by Zeus upon the whole people who are their subjects. This view is to be found in the *Iliad* also. Neither does Hesiod speak more harshly of these princes than is implied by the poet of the *Odyssey* in his picture of the suitors. No princes are attacked or lightly spoken of except for injustice. All this is consistent with an age when an increasing population made agriculture more important, and when the better members among the ruling aristocrats wished to encourage justice and diligence, not only in their subjects, but in their thoughtless or dissipated equals. The high and noble view of the unity and justice of the Supreme Governor of the world—to the complete exclusion of lesser deities—is the most striking feature of the poem, and its most curious contrast to the *Theogony*. The shepherd class, by the way, are there even treated with contempt.

§ 2. The poet of the *Works* seems to me to have lived about the middle of the seventh century, B. C. Here are my reasons :

The return of his father from Kyme—from a rich and fertile sea-coast to a poor and barren upland farm—can only be accounted for by some grave misfortune or decay in the fortunes of the Asiatic colonies. This is most easily to be found in the rise of the Lydian power under Gyges, after the opening of the seventh century. According to Strabo and Nicolaus Damasc.,⁸ this king possessed the whole Troad as

⁸ Quoted by Grote, iii., p. 303.

far as Abydos, and therefore must have possessed the intermediate territory, which included the inland country behind Kyme. Dius, the father of the poet, seems to have taken at first to sea traffic, but with little satisfaction; and thus, as his agricultural prospects were spoilt by the Lydian upstarts, he would ultimately return to Bœotia, from which we may conceive his forefathers to have originally set out.

This chronological argument is evidently strengthened by the farther allusion to the games at Chalcis—probably near the conclusion of the Lelantine war. Chalcis and Eretria, who contended for the possession of the disputed plain, were then by their commerce perhaps the two leading cities of Greece Proper. They were founding colonies all over the northern Ægean and the Hellespont. Their war became so important, that all mercantile Greece, especially Samos and Miletus,⁹ joined in the fray. These facts have led historians to see in this war a great commercial conflict; and therefore to place it in the days of the great Hellenic colonization—about the beginning of the seventh century. If my argument be correct, we must bring it down some fifty years, or at least we must bring down the death of Amphidamas, the ‘king’ of Chalcis, to a period after the Lydian pressure had been for some time felt.¹⁰ But there is no difficulty in doing so, and E. Curtius’ date for the Lelantine war (704 B. C.) is only, I should think, a tentative one, and based

⁹ Herodotus says (v. 99) that the Eretrians were repaying (in 500 B. C.) a debt to the Milesians for helping them previously. It seems absurd to imagine this obligation incurred more than 200 years previously.

¹⁰ I think the allusion in Theognis (v. 891) to the ravaging of the Lelantine plain must refer to this Lelantine

war as contemporary, and must be an older fragment transferred to the conglomerate which now passes under his name. Indeed, the date of Theognis is not very certain; but most modern critics place him about 560 B. C. The lines make the war contemporary with the Cypselids, therefore not concluded before 657 B. C. Cf. Appendix, *post*.

III. *THE DATE OF HESIOD.*

IT IS TEMPTING TO ASK FOR THE PRINCIPAL GROUNDS, which are all I possess, for placing him so early. But to prove this would lead us far far from our literary history.

I would only notice what can be said against this theory, which would lower the date of Hesiod so low, and would therefore raise it to his present antiquity. I pass at once to what is the argument of *Beck* (L. G. i., p. 937), who says that Hesiod must have succeeded the 1st Olympiad because *Homeros* is *Ionikos*, whereas we certainly know that *Homeros* must have lived about B.C. 750, would else be the father of the school of poetry, whereas he clearly follows Hesiod: *neq.* This argument contains nothing in its premises or assumptions. We know nothing of *Euclid*, except that all the works attributed to him (save one) were thought spurious by Pausanias—this is to say the only works which may have been Hesiodic in character. His date is unknown: his very personality may be mythical.

There is no doubt a general belief in the primitiveness of Hesiod, and I desire to believe him far anterior to the historical poets of the seventh century: but this really rests on no basis of any value, except the statement of Herodotus, whose real intention was not to raise, but to lower, the date of Homer and Hesiod. *They lived*, says he, *four hundred years before my time, and was more*. But unfortunately he made them contemporary, and this takes greatly from his authority about Hesiod: for it has been made quite plain by modern criticism that Hesiod presupposes Homer, and is therefore posterior. Of this there is one clear proof. I put no stress on the shortening of syllables, or other linguistic evidences, for the dialect of Hesiod is not the same as that of the Ionic School, and therefore what seem later modifications may be radical differences. But in the description of the Four Ages of Man—the Gold, the Silver, the Bronze, and the Iron—the gradual decadence is broken

in upon (after the Bronze) by a fifth race, apparently better than two of its predecessors—that of the heroes who fought and died at the wars of Thebes¹¹ and Troy. It is evident that no historical place could be found for them, nor were they admitted in the legend which compared the succeeding races of men to the metals. But so powerful was the effect of the Heroic Epics, that the shrewd poet of the *Works* thought it necessary to find a niche for this race in his Temple of Fame; and so the legend was distorted to admit them as a fifth race, created out of due time by the Father of gods and of men.¹² This fact in itself would prove that Homer was considerably anterior to Hesiod, if it were not already perfectly plain to anyone who has studied the logical development of Greek literature. If any critic urges the primitive complexion of many of the saws of Hesiod in defence of his antiquity, I will remind him that my theory postulates this very thing—the adoption by the historical Hesiod of the seventh century, of all the fine old sayings which floated among the people. I will even concede that there was an earlier collection;¹³ but it seems to me impossible to detect and separate it in our present materials. It is also clearly to be admitted that when the poems came to be used as handbooks of education, many wise

¹¹ This seems to imply that the Epics based on the Theban cycle of myths were already composed, and widely celebrated—a condition of things pointing to a date after 700 B. C.

¹² It is to be noted that the old legends of both Iranians and Indians contain accounts of *five* races of anterior men, and it is not difficult to find a similar division underlying the Semitic history in Genesis. It is, therefore, probable enough that the oldest Greek legends told of *five* races, and that the number was no

novelty invented by the poet. But admitting this, the distortion of the legend to suit the glories of the Epic heroes of Troy and Thebes is the more remarkable, and an even clearer proof of the reputation of Homer and his School. In all the other legends of five races the decline of excellence seems to be gradual.

¹³ The enigmatical epitaph ascribed (on Aristotle's authority) to Pindar, χαῖρε δὲς ἡβήσας καὶ δὲς τάφου ἀντιβολήσας
'Ἡσίοδ', ἀνθρώποις, μέτρον ἔχων σοφίας,

and useful proverbs were foisted in, some from later, some from earlier, authors. There is evidence of distinctly inconsistent proverbs being thus brought together, as we find it perpetually the case in the very similar poet, Theognis. As the very best lines of this kind were probably those chosen for the purpose, it seems to me a perfectly idle proceeding to endeavour to restore the original poem by picking out the good lines, and rejecting what appears to be inferior or weak. The taste of the German critics who have attempted this is not beyond cavil, and they, of course, differ widely from one another in their æsthetic judgments; but, without disputing these, we may hold fairly that many a line may be interpolated, because it is good and striking, and that many a line has held its place, in spite of its weakness, because it was acknowledged by tradition as genuine. Nothing can be more absurd than to argue that, because a poet is a great poet, all that he composes must be great, or even consistent with itself. If, as I believe, the original Hesiod compiled from older material, perhaps not very easily fused; and if most of the interpolations which the Germans allege are by them admitted to be so ancient, that the poems were not much different in Plato's day from their present form, it is surely idle to attempt the separation of these various strata. The poems of both *Works* and *Theogony* may be rejected on fair evidence, and I think there has been patching clearly shown in the long poem of the latter; but beyond this we can only reject with certainty a very few passages. We must suspect a great many, but have no sufficient evidence to condemn them.

is only explicable, according to Götting, *pref. ad Hes.* p. 13, by assuming two Hesiods, of whom two tombs were shown. The Orchomenians admitted this, but said that the bones had been transferred from Naupactus (or from

Ascrea), owing to an oracle. But as Aristotle is only speaking of a second tomb, I suspect ἡβήσας, in spite of the fitness in form, to be a spurious word, concealing some quite different sense.

Before proceeding to an analysis of the extant works of Hesiod, a word should be said about the legends of his death, preserved at length in the *γένος* 'Hσιόδου of Tzetzes, and the *ἄγών*. After his alleged victory at Chalcis he went to Delphi, where the oracle told him:—

ὄλβιος οὗτος ἀνὴρ δς ἐμὸν δόμον ἀμφιπολεύει
 'Hσιόδος, Μούσῃσι τετιμένος ἀθανάτῃσι·
 τοῦ δὴ τοι κλέος ἔσται ὅσον τ' ἐπικίδναται 'Hώς.
 ἀλλὰ Διὸς πεφύλαξο Νεμείου κάλλιμον ἄλσος·
 κεῖθι δέ τοι θανάτῳ τέλος πεπρωμένον ἔστί·.

Accordingly, avoiding the Nemea in Peloponnesus, he went to live at CEnoe in Locris, near Naupactus, with Amphiphanes and Ganyctor, sons of Phegeus. The coincidence of name with the young king of Chalcis at the games is curious. These men, accusing him of having seduced their sister Clymene, murdered him, and threw him into the sea; but the body came to land on the shore between Locris and Eubœa (apparently a confusion between the two separate countries called Locris), and was buried at the sacred grove of Nemea in CEnoe. The people of Orchomenus afterwards removed the body, owing to an oracle, and buried it in the middle of their *agora*. The epitaph on this tomb has been quoted above. I should not mention these apparently late fables, but that they were (partly at least) known and alluded to by Thucydides (iii., 96), who says of Demosthenes, *αὐλίσάμενος δὲ τῇ στρατῷ ἐν τοῦ Διὸς τοῦ Νεμείου τῇ ἱερῇ, ἐν ᾗ 'Hσιόδος ὁ ποιητῆς λέγεται ὑπὸ τῶν ταύτῃ ἀποθανεῖν, χρησθὲν αὐτῇ ἐν Νεμείᾳ τοῦτο παθεῖν*. Pausanias also mentions that it was doubted in his day whether Hesiod was falsely accused of the crime or not. Many people held that Stesichorus was his son by Clymene—a statement which certainly brings the date of Hesiod near the very time for which I contend.

§ 3. The *Ἔργα* of Hesiod, as it seems to have been once called, without the addition of *ἡμέραι*, comprises ethics and husbandry in about equal portions, or including husbandry under what the Greeks called *Œconomics*, it directs the choice of a wife, the management of the house, and the observation of ordinary morality and superstition. The first ten lines of the exordium were rejected even by the ancients. The strictly *ethical* parts are vv. 11-46, 202-47, 274-382, 708-64.¹⁴ The address to the *Princes*, about their injustice (248-73), is the only part of the poem which could possibly be classed under the head of *politics*, and I think improperly; it is strictly ethical, but not addressed, like the rest, to Perses. The *œconomics*, in the choice of a wife (695-705), are trifling compared to the advices on husbandry (vv. 383-617), from which the whole poem took its name. Then follow advices on coast-trading (618-94), and a calendar of lucky and unlucky days (v. 765 to the end). In addition to these principal parts, there are three remarkable episodes—that of Pandora (47-105); that which immediately follows, on the Five (or Four?) Ages of Man; and, lastly, the picturesque description of winter (524-58), which many of the Germans consider a very late and Ionic addition to the grave soberness of the *Works*, breathing a spirit of levity and of display. In these three episodes, Perses is not addressed, nor is he mentioned in the calendar. This latter portion, especially, which consists of brief, disconnected sentences, shows evidence of much interpolation, though it is impossible to expose it. As to the larger episodes opinions vary considerably, each of them being attacked and defended by able scholars. The *proverbial* character of the whole composition is clear from its (a) many short and disconnected sentences, which are in one passage (vv. 300, *sqq.*) apparently strung together from the recur-

¹⁴ According to the text of Götting, from whom I take this analysis.

rence in them of the root *ἐργ* in various forms.¹⁵ This attention to sound has been shown to exist all through the Hesiodic poems by Götting (pref., p. 33), in the form of (β) alliteration. Many of these adjoining advices are, furthermore, plainly (γ) inconsistent with each other, as is always the case with proverbial collections of wisdom. On my theory, this question will assume a somewhat different form. The Hesiod of the seventh century—bringing together older materials, loosely and without strict logical nexus—would not be very nice in selecting fragments of precisely the same age and character; he would naturally adorn the dry and sour apophthegms of the Bœotian farmers with episodes of semi-ethical, semi-mythological import. The description of winter is most likely his own, and a most natural description for a man who remembered, or had heard of, the splendid climate of Asia Minor, and who suffered from the severity of his adopted home. But the search after special interpolations is rather a matter of caprice, and of ingenuity, than of literary history; and I therefore refer the reader to the special tracts on the subject.¹⁶ The general character and tone of the *Works* is that of a shrewd and somewhat mean society, where private interest is the paramount object, and the ultimate test of morals; but where the poor and undefended man sees plainly that religion and justice are indeed in themselves respectable, but more especially his only chance of safety.

¹⁵ The same peculiarity is to be observed, however, without any such cause, or without the word being of much importance, in the Homeric Hymn to Aphrodite (6-16).

¹⁶ Viz. :—A. Twisten, *Comm. Crit. de O. et D.* (Kil., 1815).

F. Thiersch, *De Gnom. Carm. Græc.* (*Transact. Munich Acad.*, iii., p. 391).

C. Lehrs, *Questiones Epicæ* (Königsberg, 1837).

T. L. Heyer, *De Hes. O. et D.* (Schwerin, 1848).

J. Hetzel, *De Carm. Hes. Disp.* (Weilburg, 1860).

A. Steitz, *Die Werke, &c., des Hesiodos* (Leipzig, 1869).

The attainment of comfort, or of wealth, seems the only object in view—the distrust of kinsmen and friends seems widely spread—the whole of the social scheme seems awry, and in a decaying condition. All the faults of the Greek character, which come out so strongly in after history, are there, and even obtrusive. The picture of the Iron Age (vv. 180, *sqq.*) contains every one of the features so striking in Thucydides' famous picture of the fourth century Greeks (iii., 82, *sqq.*). Nevertheless, the poet strongly asserts the moral government of the world, and his Zeus is an All-wise and All-knowing Ruler, far removed from the foibles and the passions of the Homeric type. While he mentions the evils of poverty, and knows mendicancy and nightly thieving, it is remarkable that he never alludes practically to the horrors of war, or the risk of slavery, from either this cause or from piracy. It is, indeed, doubtful whether any of the farm-servants mentioned are slaves, and not rather hired labourers, working for the owner of a freehold farm. I have no doubt about the meaning of the disputed lines (600, *sqq.*):

αὐτὰρ ἐπὴν δὴ
πάντα βίον κατάρθαι ἐπάρμενον ἔνδοθι οἶκον,
θῆτά τ' αἶοικον ποιῆσθαι, καὶ ἄτεκνον ἔριθον
δίξεσθαι κέλομαι χαλεπὴ δ' ὑπόπορτις ἔριθος.

Most of the Germans translate, 'Procure a day-labourer who has no house [and family],' and as they cannot see why such a servant should be sought when the main work is over, they proceed to strike out the lines, or transfer them elsewhere. This seems to me a good instance of their rash scepticism. Hesiod throughout supposes that the farmer has one or more farm-servants (cf. vv. 441, 503, 608). There is always work to be done, as appears from the following verses. The line must, therefore, be taken strictly with the preceding, and rendered, 'When

you have brought all your stores into the house, then you must turn your servant out of it, and see that the woman servant (who still sleeps within) has no child to feed.' The repetition of *οἶκος*, which here means *barn*, is quite conclusive, and so is the different verb used for the change of residence in one servant, and the procuring of another. This proceeding is, furthermore, recommended *at the beginning of the hot weather*, when sleeping in the open air, or under any natural shelter, is in the climate of Greece no hardship, and is constantly done.

The poetical merit of the work has generally been under-estimated, owing to a tacit comparison with Homer. In the episodes on the Ages of Man, and the description of winter, there is much fine and vigorous painting, and even in the homely parts there are quaint and happy thoughts, expressed in terse and suitable words. I would specially point to the picture (v. 448) of the farmer hearing the annual scream of the crane in the clouds, and feeling a pang at his heart, if he has no oxen to begin his ploughing. The terms *φερέοικος*, *ήμερόκοιτος*, *πέντοζος*, *ἀνόστεος*, are noted by the commentators, with a few similar formations in Æschylus, as evidences of what they consider an oracular or religious style.

There is no advice upon wheat-growing, and little on vineyards, though the making of wine is assumed as an ordinary thing among the Bœotian farmers (vv. 611-4); nor is there a word about horses, which were only kept by the nobles. The absence of all manuring struck even the Romans, and can hardly be explained by the causes which permit the same omission in the present farming of Bœotia, where the population is so sparse that the land is not occupied, and the husbandman can shift his crop yearly to a piece of land which has lain fallow the previous season. Such a state of things could hardly have escaped mention through so many details as we find in the *Works*.

§ 4. The *Theogony*, also called the *Genealogy*, of Hesiod, and really an abstract of cosmogony, was acknowledged by all antiquity, including Heracleitus and Plato, as the work of Hesiod, until it is called in question by Pausanias, who states that the Bœotians about Helicon only admitted the genuineness of the *Ἔργα* without the preface. He himself, in various places, adopts this opinion as his own, but his reasons, or those of his authorities, are nowhere given. It seems very remarkable (as Götting notes), that in the list of Greek rivers (vv. 343, *sqq.*) no mention is made of any Bœotian rivers, even of the Cephissus, which is an important stream, and which was mentioned repeatedly in other poems attributed to Hesiod (cf. Fragg. 201-3, Gött.). Indeed the special legends of Bœotia seem strangely neglected by one who appears to have been the national poet.

A careful comparison of the two poems will, nevertheless, incline us, if we abandon the preface of the *Theogony*, along with that of the *Works*, to pronounce both poems the work of the same author. The subjects are so diverse that constant similarities are hardly to be expected. Nevertheless Steitz has carefully collected (pp. 37, *sqq.*) so many natural and undesigned likenesses in expression, as almost to persuade himself, in spite of his very sceptical turn of mind. There are, in addition, whole passages of still stronger resemblance. The story of Prometheus and Pandora is told in both poems, but with such variations that it is not possible to determine which is the original, and that we must regard them as independent copies of an older account. There is added in the *Theogony* a satirical picture of the female sex, which is exactly in the tone and spirit of the *Works*. Both poems farther strike one strongly with the same piecemeal and compiled character, and seem to be the production of the same sort of poet—a man of considerable taste for collecting what was old and picturesque, but without any genius for

composing from his materials a large and uniform plan.

These general features, when corroborated by the tradition of the Greeks so far back as Heracleitus, seem to me stronger than the objections brought by modern critics from contrasts rather in subject than in style. Such objections are farther weakened if we assume that the author of the *Works* was not an original and independent thinker, but a reproducer of older fragments.

There seems, in fact, an argument in favour of unity of authorship from the very contrast of subject. The *Works*, a purely ethical and practical poem, intentionally avoid theology, and treat of the Deity in the vaguest and broadest sense, as a single consistent power, ruling the world with justice. The *amours* and foibles of the gods, as portrayed in Homer and the Hymns, are evidently distasteful to the poet, and opposed to his notions of pure practical ethics. In his second poem, on the contrary, he goes at length and in detail into the wars, alliances, and other commerce of the gods, but distinctly in the sense of a *cosmogony*, not as the prototype of a human society. The violences which Homer attributed to the gods, as beings of like passions with men, are felt vaguely but strongly by the poet of the *Theogony* to be great convulsions of physical nature—such as the early eruption of Ætna, which he pictures under the form of the revolt of Typhoeus against Zeus (vv. 820, *sqq.*) We can conceive him then composing the *Theogony* as a sort of supplement to the *Works*; but a supplement already showing the changing attitude of Greek religion, by which it was ultimately dissociated from ethics, and gradually estranged from them into a mere collection of dogmas and of ritual.

The poem begins with 115 lines of invocations to the Muses, which are not well put together, and show clear traces of being a *cento* from various older Proœmia, or introduc-

tory Hymns, but which contain many passages of considerable beauty. The personal passage about Hesiod himself vv. 22-35 has been very generally suspected by the critics, but assuredly represents a very old tradition, that he was a shepherd on the slopes of Helicon. The Bœotian Muses here distinctly contrast the lying epics of the Ionic bards with the sober truth of the school of Helicon vv. 26-7. There is a very interesting panegyric on Calliope (70-93, in which the eloquence which she bestows on princes is specially brought out as a great power in politics and lawsuits. If there were any allusion to the Muses as *three* not as nine, I should be more ready to agree with the German critics who regard these fragments of Hymns as very old Bœotian poetry.

After this introduction the poet approaches the genealogies of the gods, from primeval chaos downward till we come to demigods and heroes. The subject is very dry, and the crowds of names make the poem spiritless and dull as a whole, but there are frequent passages of strange power and beauty scattered everywhere through it. The famous passage describing the Styx (vv. 775, *sqq.*) shows the poet to have known and appreciated the wild scenery of the river Styx in Arcadia, as M. E. Burnouf, a most competent observer, testifies [*Lit. grecque*, I. p. 131]. The description of Sleep and Death which immediately precedes is likewise of great beauty. The great conflict of the gods and Titans (vv. 605, *sqq.*) has a splendid crash and thunder about it, and is far finer in conception, though inferior in execution, to the battle of the gods in the *Iliad*. The same may be said of the struggle between Zeus and Typhoeus. At the end of the legend of Pandora, a satirical description of the female sex is foisted in (vv. 590, *sqq.*), which differs widely in character from the subject of the poem, and is closely allied to the extant fragments of Simonides of Amorgos, and his school. This passage, if

genuine, would show how the poet concealed a shrewd and bitter temper, in what may have been an ungrateful task, and how the age of iambic satire, and of reflective elegy, had already commenced.¹⁷ Some parts of the conclusion have been tampered with, especially where Latinus and the Tyrrhenians are mentioned, for though Strabo holds that Hesiod knew Sicily, which (by the way) supports the theory that he lived after the settlement of that island by the Greeks about 700 B. C., it is absurd to foist upon him any statement about the descent of Latinus from Ithacan parentage.

Acusilaus is mentioned by Plato, Josephus, and a schol. on Apollonius Rhodius, as a commentator or prose paraphrast of the Theogony. Bernhardt supposes him to have been a Peloponnesian theologian, who collected genealogies and cosmogonies, and arranged them after the manner of Hesiod, but in prose. But we are left quite in the dark by our authorities concerning him.

§ 5. Very little need here be said of the remaining poem of 480 lines, attributed to Hesiod, the so-called *Shield of Heracles*. It begins with an account of the birth of Heracles and Iphitus, then passes to the conflict of Heracles and Iphitus with Ares, and then to an elaborate description of the shield of Heracles, from which the poem takes its name. It will be observed that the hero Heracles is not yet described as armed with a mere club and lion's skin, but wears the same panoply as his fellows. The poem was probably intended for recitation at a contest, and seems to be one of the latest of the productions of the epic age. Its genuineness was doubted by the Alexandrine critics, especially Aristophanes, and by Longinus, and they noted that the first 56 lines, which begin abruptly with ἦ οἴη, were to be found in the 4th book of the *Eoia*, or Catalogue of

¹⁷ There are foretastes of this attitude in the *Works*, vv. 701, *sqq.*

famous women attributed to Hesiod), where they would naturally come in as the history of Alcmena. But the third Preface or *ἑρμηνεία*, after stating these facts, adds that Megacles probably Megacleides), the Athenian, while censuring the merit of the poem, knew it to be genuine. It says that Apollonius Rhodius supported it on internal evidence, as of the same authorship with the *Catalogue*, and lastly that Stesichorus says it is Hesiod's. This last authority would be decisive, but we must suspect the writer of the note of haste or inaccuracy.¹⁸

It has been clearly shown by O. Müller, that while the shield of Achilles in *Il. Σ* is a mere fancy picture, the shield of Heracles seems based on actual observations of plastic productions, and even of favourite subjects which are still extant on vases. While this must depress the date of the poem, it increases our sense of the inferiority of the imitator, who could not, with Homer and with actual plastic reliefs before him, imagine a more harmonious piece of work. Almost all the perfections of the grouping in Homer are lost, and the terrible and weird are substituted for the exciting and picturesque in Homer. Had we not the original, we should doubtless admire many of its features in the copy, but fortunately this copy is to us of no value. One passage about the tettix, though not very apposite, has great merit (*vv.* 393-9).

ἦμος δὲ χλοερῷ κνανόπτερος ἤχεται τέττιξ
ὅς ῥ' ἐφεζόμενος, θέρος ἀνθρώποισιν ἀείδειν
ἄρχεται, ᾧ τε πόσις καὶ βρώσις θήλυς ἐέρση,

¹⁸ Götting, who divides the poem into three distinct parts: the oldest, taken from the Catalogue of Women, *vv.* 1-56, the second, also old, 57-140 and 317-480, and lastly the far later description of the Shield, *vv.* 141-317, thinks that Stesichorus may have

quoted (in his *Cycnus*) from the second part as a work of Hesiod's, and that some of it may really be such. This would not establish the present poem to be genuine, but would admit old fragments of the real Hesiod—a most reasonable hypothesis.

καί τε πανημέριός τε καὶ ἥως χέει αὐδὴν
ἴδει ἐν αἰνοτάτῳ, ὅποτε χροῶ Σείριος ἄζει.

It should be added, as regards its ascription to Hesiod, that it resembles both *Works* and *Theogony* in a great many expressions and phrases, which are collected by Steitz in the passage above cited. It seems therefore, that with the hint concerning Stesichorus before us, we must allow such conservative critics as choose to assert its authenticity, that their case is not hopeless.

§ 6. We turn for a moment to the extant fragments of other works attributed to Hesiod.

Of these Gaisford and Dindorf collected a great many, and by the labours of Marckscheffel, Götting, and Hermann, the number has been raised to above 200, if we include mere allusions in scholia and commentators. As literature, they have to us no value, and will never be read, as the fragments of the tragic poets are, for their own sake. Their general character is quite Hesiodic, that is to say, they treat of lists of gods and heroes in a partly genealogical, partly epical, way. They contain a perfect mine of mythological lore, and give the legends and stories of peoples far beyond the range of the ordinary Hellenic world, so that their composition, generally speaking, cannot fall before the epoch of extended Greek colonies. Though it be quite false that Homer and Hesiod made the religion of the Greeks, in the sense of establishing gods and cults, or in altering any old local worships, it seems certainly true that Hesiod especially did give to the later *literary* Greeks a *Summa Theologiæ*, to which they referred for the origin and relationships of gods and heroes.

This is the proper sense, I think, of Herodotus' famous remark, and is especially true of (1) the *Catalogue*, in three books, to which was joined the *Great Eoiai* (ἡ οἴη), or Catalogue of Women, as a fourth book,

which is, however, generally quoted as an independent work. The Catalogue was a sort of Greek *Peerage*, and gave the family trees and relationships of the principal Greek heroes, so showing the parentage of the Æolic and Doric nobility. We have a fair idea of the fourth book from the fragment preserved at the opening of the *Shield of Heracles*. The date of the *Eoiai* cannot be determined more accurately than by the allusions quoted from it (α) to the nymph Cyrene, probably, therefore, after the founding of that colony; that of the *Catalogue* by allusions (β) to the Sicilian Ortygia, and (γ) to the fable of Io, which Kirchhoff thinks to have come into vogue about Ol. 30. But all these inferences are very uncertain. (2) The *Αιγίμος*, attributed by most people to Hesiod, but by some to Cercops the Milesian, was a poem on the war of Ægimius, King of the Dorians, with Heracles as his ally, against the Lapithæ. It seems to have been mainly intended to bring the Doric conquerors of the Peloponnesus into relation with Heracles, through their chiefs, who boasted of their descent from him. (3) The *Κήρυκος γάμος* was also a poem introducing Heracles as a leading character, and celebrating his exploits. (4) The *Μελαμποδία* was about Melampus, Tiresias, Calchas, and other famous prophet-priests, and may have contained some account of the history of prophecy among them.

It was evidently owing to this poem that its supposed author, Hesiod, was considered the forerunner of the Orphic mystical school. Of his successors in this direction, we have, besides Orpheus, Eumolpus, Musæus, Epimenides, but to us these are mere names. In the genealogical and mythological direction, we have, similarly, the Laconian Cinæthon, Asius, Chersias of Orchomenus, the Corinthian Eumelus (*Κορινθιακά*), the anonymous authors of the *Ναυπάκτια ἔπη*, *Ἀργολικά*, and the *Φωρωνίς*, and others who were not apparently in

any contact with the Ionic Epic, but Hesiodic in character.

The Ἀριμιάσπεια by Aristeas of Proconnesus were, on the contrary, a collection of phantastic fables about nations and countries beyond the knowledge, but within the rumour and the imagination of the early Ionic adventurers into unknown seas and coasts. There was, indeed, a supposed *journey round the world*, or γῆς περίοδος, ascribed to Hesiod, but probably of later origin, cited by Strabo, VII., p. 302, and also an *astronomy*, cited by Plutarch and Pliny. A few lines are also preserved of the Χέλωνος ὑποθήκαι, a set of moral instructions supposed to be given by Chiron to Achilles, and which Quintilian says were thought Hesiod's till pronounced spurious by Aristophanes of Byzantium. Of all these fragments there are several collections, of which those by F. S. Lehrs (in the Didot *Corpus Epicorum*, Paris, 1862), by Düntzer (Köln, 1840-1), by Marckscheffel (Lips. 1840), which also contains the fragments of the other authors above alluded to, and by Götting (appendix to his *Hesiod*, ed. 2, Gotha, 1843), are all to be thoroughly recommended.¹⁹

§ 7. It remains to give a short sketch of the external history of the Hesiodic poems through antiquity, and down to our own day. It is very hard to say whether the strong family likenesses in Archilochus to Hesiod arise from a similarity in tone and style, or from direct contact. The extant fragments are not sufficient to prove the latter, which would throw back Hesiod to an earlier date than I am disposed to accord him. But if he were an earlier contemporary, and living in a parallel state of things, general similarities might be expected. Archilochus used beast fables like that in Hesiod. He unjustly (says Plutarch)

¹⁹ The old lists of the works ascribed to Hesiod are found in Pausanias, IX., 31, 5, and in Suidas, art. Ἡσίοδος;

they contain a few additional titles to those I have mentioned.

reviles the climate of Thasos and its barrenness, forgetting the rich vineyards, in contrast to the valley of the Liris, just as Hesiod censures the rich Bœotia, as compared with Kyme. But there is no proof of borrowing. The same may be said of Simonides of Amorgos, whom the critics place doubtfully in the middle of the seventh century B.C., and contemporary with Archilochus. Here, again, there are strong family likenesses to the *Works*; but the only passage (in the *Theogony*) which seems a direct model of Simonides' satire on women is decidedly an interpolation in that work, and its use of the bee (in an opposed sense to that of Simonides) for the working men, with drones for the women, seems to me plainly a satiric correction of Simonides, and composed after his famous poem.

We know nothing what ever of Cercops, who is mentioned as Hesiod's earliest follower and rival, nor is there any real evidence of Terpander having been such. In the extant lyric and elegiac fragments, no certain trace appears till Alcæus, whose frag. 39 is a most distinct copy of Hesiod. So likewise, the resemblances in Theognis are far more than general, and it seems undeniable that in the middle of the sixth century the poems of Hesiod—at least the *Works*—were well known and circulated.

We may place in the same epoch the very curious poem on the *contest of Homer and Hesiod*, which is largely quoted in the prose tract of that title.²⁰ This poem was of old attributed to Lesches, the author of the Little Iliad, and seems, at any rate, to have originated in those days when the gnomic and sententious Bœotian school had obtained a greater popularity than its Ionic rival. The poem lays its scene at the contest of Chalcis, and tends to show that, although Hesiod was declared victor, Homer was far the greater poet—a needless task.

²⁰ Printed at the end of Götting's and Lehrs' editions of Hesiod.

Shortly before and after the times of the Persian wars, Xenophanes, and then Heracleitus, attack him—the first for his immoral teaching, along with Homer, about the doings of the gods (*Theogony* and *Catalogue*); the second for idle learning in the same profitless subject.

It seems that he had been subjected to some critical revision about this time, by the Commission of Peisistratus, for Plutarch (*Theseus*, c. 20) mentions a verse which was then removed. Whether the poems had been hitherto preserved by a school of Hesiodic rhapsodists, is not sufficiently clear. It seems certain, however, that they were recited at poetical contests, and in early days without musical accompaniment, for Pausanias (ix. 30, 2) criticises a statue of Hesiod with a lyre on his knees as absurd, seeing that he sang with a bay branch in his hand ἐπὶ ῥάβδου δάφνης ᾗδεν). This was in contrast to the Ionic rhapsodising.²¹ These opposed methods were not strictly adhered to in after days, and were even at times reversed.

But in Attic days Hesiod attained a widespread popularity as a book of moral instruction for the use of schoolmasters and parents. The Greeks, indeed, all through regarded the *Works* as an ethical treatise, while the Romans afterwards laid more stress on the agricultural side. Plato constantly alludes to Hesiod, and quotes him, not very accurately, as an authority in morals and in theology. This is likewise the case with Xenophon. So thoroughly was this recognised that the comic writers brought him on the stage as the ideal of an old-fa-

²¹ Pausanias (x. 7, 6) tells us a story, that Hesiod was excluded from contending at the Pythian games, because he had not been taught to play the lyre along with his singing. But when he adds that Homer also was unsuccessful, seeing that his training

in the art could not be perfected owing to his want of sight, he seems to repeat the stories of the time when the richer and more elaborate lyric poetry came to look upon the old epic recitation as bald and poor.

shioned schoolmaster, full of cut and dry moral advices. The philosophers who succeeded Plato, especially the Stoics Zeno and Chrysippus, made him the subject of criticism; and Epicurus is said to have got his first impulse towards philosophy from reading the *Theogony*. So also Manilius, the Roman poet.

Philologically, the works of Hesiod excited the same sort of interest as those of the Ionic epic poets, but in a lesser degree. We still have scanty traces of the critical notices of Zenodotus, Aristophanes, and Aristarchus; of Apollonius Rhodius, of Crates, and of Didymus; in fact, of almost all those whose names are found in the Homeric scholia. But Plutarch, as a Bœotian, wrote a special treatise in four books on Hesiod, which the remaining fragments show to have been both critical and explanatory, particularly of an antiquarian and patriotic character, defending the poet against objectors. His work was the main source of the commentary of Proclus, who again was copied servilely by Tzetzes. The later commentary of Manuel Moschopoulos is still extant, and completely printed in the Venice ed. of 1537. The prose tract, ἄγων Ὀμήρου καὶ Ἡσιόδου is the work of some rhetor under the Empire, but its date is not fixed. It is very full on the legends and parentage of both Homer and Hesiod. The γένος Ἡσ., generally printed as a preface to his works, is probably a mere compilation of Joh. Tzetzes, from Proclus, but is very instructive, like the ἄγων, in indicating to us what materials were still at hand in that epoch.

§ 8. Passing on to the MSS. left us, we find a very great number of copies of the *Works*, covered with scholia, and often with illustrations of the farming implements, but not critically valuable. The oldest seems to be the Medicean 5, of the eleventh century; then the Medicean 3 (plut. xxxii. 16), of the twelfth. The rest are all fourteenth and fifteenth century books, generally on paper, full of scholia

otes, and variously put together with the other ic works, and with Theocritus, Nonnus, the pseudo-orea, and other moral fragments. The MS. copies *Theogony* and *Scutum* are not so frequent, and none as the twelfth century, I believe. The sort of col- generally found in the MSS. is well reproduced in utiful Aldine ed. of 1495, which, though the *Works* ough out a year or two earlier at Milan, is the ich gives the whole, and is the *Ed. princeps* for the Hesiod.²² It contains a great many other authors, an stray collections of proverbs. The Juntine eds. and 1540 are said to be mere copies of the Aldine. Trincavelli in 1537 gave the scholia in full, and has ident merit. Then comes the great edition of nus (1566), and a very complete one of D. Heinsius. commentators the first place is due to Gaisford, Oxford edition is admirable from its fulness of h about both MSS. and scholia (*Poetae minores* 1814-20). Next may be mentioned Göttling's l. Gotha, 1843), the most convenient for the ordi- student, and lastly, Mr. F. A. Paley's, which, with nerits, is overloaded with very questionable notes he Digamma,²³ and the etymology of old Greek

The best complete text of the poems and frag- is that of F. S. Lehrs in Didot's series (2nd ed.

e is a beautiful copy of this the Library of Trinity College, E. c. 6).

ve said nothing about the , because I do not believe its or absence can be of the least ermining the genuineness or ss of any line in Hesiod. il researches of the Germans n that it is present or absent e word according to the exi-

gencies of the metre; and there seems really evidence for the fact that the Digamma was a letter which could be arbitrarily used or dispensed with in Epic poetry. There is the most sur- prising variation, exactly of the same kind, though without metrical reasons, in the inscriptions of the same town. I will not deny that there may be a law of its use, but so far this law does not seem likely to be discovered.

1862). There are endless special dissertations by the Germans, which are enumerated by Bernhardy. Müttzell's book *De emendatione Theogoniæ Hesiodææ*, Lips., 1833, is praised as very painstaking and complete. There is also an edition of the *Theogony* by F. A. Wolf (1783).

The imitations in Virgil's *Georgics* are too well known to require closer description. There are translations into German by Voss, and Uschner, and into French by Gin and Bergier, in addition to the Latin hexameter translations of the Italians, N. Valla, and B. Zamagna, in the fifteenth century, and the early French one of Jacques le Gras in 1586. These have not been accessible to me, and I cannot offer any opinion as to their respective merits.

As to English translations, I cannot find any mention of more than three, all of which I have consulted. The first is of the *Works* only, the '*Georgics* of Hesiod,' by George Chapman (1618). This, like all Chapman's work, is poetical and spirited, but often very obscure to modern readers, though it constantly cites the original in foot-notes. The book, which was very scarce, has been reprinted with other of Chapman's translations, by J. R. Smith, (London, 1858). Next we have the work of Cooke (1743), who seems unaware of Chapman's translation, and who gives us a pretentious and stupid rendering of the *Works* and *Theogony* in heroic verse. The last and best, and the only complete translation, including the *Shield*, is that of Elton (2nd ed. 1815), who knew his predecessors well, and gives us scholarly renderings of the *Works* in heroic rhymes, and of the other two poems in blank verse. Parnell's *Pandora, or the Rise of Woman*, is a free imitation of the corresponding pair of passages in Hesiod. There is no use in discussing the several busts and statues of Hesiod, which Pausanias saw and describes in his tour through Greece. It need hardly be stated that these, like the portraits of Homer, were mere works of imagination, and have no historical claims. There

are five epigrams or epitaphs upon him extant, two quoted at the end of Tzetzes' Greek preface to his works, and stated to be set over his tomb in the *agora* of Orchomenus—one of them ascribed to Pindar. Three others are in the Anthology, one of which, by Alcæus of Messene, has considerable merit.

APPENDIX ON THE LELANTINE WAR.

Here are our ancient authorities for this now forgotten,²⁴ but once very important, war:—

(1) Theognis (vv. 891, *sqq.*):

Οἷ μοι ἀναλκίης· ἀπὸ μὲν Κήρινθος ὄλωλεν,
 Ληλάντων δ' ἀγαθὸν κείρεται οἰνόπεδον,
 οἱ δ' ἀγαθοὶ φεύγουσι, πόλιν δὲ κακοὶ διέπουσιν·
 Ὡς δὴ Κυψελιδέων Ζεὺς ὀλέσειε γένος.

(2) Herodotus (V. 99). The Eretrians send five triremes (B. C. 499) with Aristagoras, out of gratitude to the Milesians, οἱ γὰρ δὴ Μιλήσιοι πρότερον τοῖσι Ἑρετριεῦσι τὸν πρὸς Χαλκιδέας πόλεμον συνδιήνεικαν, ἅτε περ καὶ Χαλκιδεῦσι ἀντία Ἑρετριέων καὶ Μιλησίων Σάμιοι ἐβοήθεον. This is most probably a reference to the same war, for

(3) Thucydides says (I. 16), μάλιστα δὲ ἐς τὸν πάλαι ποτε γεγόμενον πόλεμον Χαλκιδέων καὶ Ἑρετριέων καὶ τὸ ἄλλο Ἑλληνικὸν ἐς ξυμμαχίαν ἐκατέρων διέστη.

(4) Plutarch, in speaking of the poetic contest at the funeral games of Amphidamas, says (Conviv. sept. sap. c. 10), ἦν δὲ ὁ Ἀμφιδάμας ἄνηρ πολεμικὸς καὶ πολλὰ πράγματα παρασχὼν Ἑρετριεῦσιν ἐν ταῖς περὶ Ληλάντων μάχαις ἔπεισεν. In his commentary on the *Works*, as quoted by Proclus, he added that he fell ναυμαχίας, which would bring down

²⁴ Grote, in his elaborate History, is absolutely silent, I believe, on this war.

the date below 664 B.C., (the year of the earliest naval battle) but that K. F. Hermann's emendation *μονομαχίας* is very probable. This gives us a clue to bring in the lines above discussed.

(5) Hesiod (*Ἔργ.* 654-7).

ἐνθα δ' ἐγὼν ἐπ' ἄεθλα δαΐφρονος Ἀμφιδάμαντος
Χαλκίδα τ' εἰς ἐπέρησα· τὰ δὲ προπεφραδμένα πολλὰ
ἄθλ' ἔθεσαν παῖδες μεγάλήτορες.

(6) The prose tract called *Ἡσ. καὶ Ὅμ. ἀγών* adds that Amphidamas' son was called Ganyctor (no second son is mentioned), and his brother Paneides.

There are, besides, three notices of the war.

(7) In Plutarch's *Ἑρωτικός*, c. 17, he speaks of the death of Cleomachus the Pharsalian: *ἦκεν ἐπικούρος Χαλκιδεῦσι, τοῦ Θεσσαλικοῦ (?) πολέμου πρὸς Ἑρετριεῖς ἀκμάζοντος, καὶ τὸ μὲν πίζον ἐδόκει τοῖς Χαλκιδεῦσιν ἐρρίωσθαι τοὺς δ' ἴππους ἔργον ἦν ὥσασθαι τῶν πολεμίων.* He succeeded, and won the battle, but was killed, *τάφον δ' αὐτοῦ δεικνύουσιν ἐν ἀγῶνι Χαλκιδεῖς, ἐφ' οὗ μέχρι νῦν ὁ μέγας ἐφέστηκε κίων.* He adds that Aristotle followed a different account about Cleomachus, agreeing that he died in a victory over Eretria, but that the man about whom was told the rest of Plutarch's story (concerning *τὸ παιδεραστεῖν*) *τῶν ἀπὸ Θράκης Χαλκιδέων γίνεσθαι, πεμφθέντα τοῖς ἐν Εὐβοίᾳ Χαλκιδεῦσιν ἐπικούρον.* This allusion shows considerable alliances from the north for Chalcis.

(8) Strabo, lib. x. p. 308, in his account of Eubœa, speaks of this plain as once abounding in both copper and iron, though in his day both were exhausted, and also in hot springs. He says that a pillar, upon which a mutual engagement between Chalcis and Eretria was inscribed, still existed at Amarynthos, a village seven stadia from Eretria, *φράζουσα μὴ χρῆσθαι τηλεβόλοις.* He goes on to explain that this does not mean spears used in the hand. He says the cities were old friends, and cites this as a proof of

their good feeling even in the Lelantine war. Another *Zeile* stated that in a public procession Eretria could muster 1000 hoplites, 600 cavalry, and 80 chariots, and ruled over Andros, Naxos, and Ceos, showing alliances to the south.

(9) This inscription, to which Strabo refers, may have its date reasonably fixed by a remarkable fragment of Archilochus (No. 4, Ed. Bergk) which has not yet, I think, been cited in this connexion :—

οὐ τοι πόλλ' ἐπὶ τόξα τανύσσεται οὐδὲ θαμναί
σφενδόναί, εὔτ' ἂν δὴ μῶλον Ἄρης συνάγῃ
ἐν πεδίῳ· ξιφέων δὲ πολύστονον ἔσσεται ἔργον·
ταύτης γὰρ κείνοι δαίμονες εἰσὶ μάχης
δεσπόται Εὐβοίης δουρικλυτοί.

This fragment implies the very point which Strabo urges, that close encounter does not exclude the use of spears for thrusting. It seems to me more than probable that Archilochus is here speaking of the very war in question, and of the conditions referred to by Strabo. But Archilochus mentions the wealth of Gyges as notorious, and therefore cannot be placed before his time by the chronologists. Now Gyges, according to the latest researches, must be moved down a generation, and into the early part of the seventh century B. C. Thus, the date of Archilochus will not be 700 B. C., but rather about 660. This agrees with my other deductions.

It is not easy to discover with any certainty from these passages, either the date, the duration, or the object of the war. The general tone of the allusions seems to imply a long struggle, probably as long and wearisome as the struggle of Athens and Megara for Salamis, or of Sparta and Argos for Cynuria. Such smouldering and often revived wars about frontier possessions were common in early Greek history. As to the date, our only contemporary notice (except that of Archilochus) is that in Theog-

nis, but the lines are clearly not that poet's composition, for he lived a generation after the last Cypselids reigned in Corinth.

This passage is, therefore, most probably transferred from some earlier poet to the collection called after Theognis, and must have been written between 657 B.C. and 580 B.C.—apparently near the beginning of that epoch, when the fresh advent of Cypselus to power had changed the policy of Corinth towards Chalcis. For, as Corinth and Samos had friendly relations about this time, it is likely that the Corinthians joined with the Samians to help the Chalcidians. The passage would then seem to imply that the old aristocratic party at Corinth had helped the old aristocracy of Chalcis, till the advent of Cypselus, who refused farther help, and that, in consequence, the people, perhaps helped by the Eretrians, got the upper hand.

It is also remarkable that this passage speaks of the war, not as a naval or commercial war, but as an internal struggle of aristocracy against democracy. This we should expect in the middle of the sixth century, but not during the early burst of colonial enterprise, before the year 700. K. F. Hermann, in his Essay on the subject (*Rhein. Mus.* 1st series, vol. I. p. 84), seems to hold that Eretria was democratic, and that it was a political war of this kind. I do not believe that the inscription cited by Strabo, about points of honour in their battles, or his statement that they were old friends, is quite consistent with this, and think that at the time of the inscription, and of Archilochus' allusion, there must have been chivalrous nobles on both sides. The Chalcidians were the greater favourites, at the time, for all our anecdotes of prowess in the war are about them, and they certainly in after days possessed the plain in dispute. But we have no evidence of any large colonial interest being at stake, though we are told of Eretria's great power. It is to

is to be noted that this power, according to Strabo, was a supremacy over southern islands, while that of Chalcis was over northern coasts. It seems to me very probable that the Eretrians worked the mines of Laurium at this time, although we have no mention of it. Their power after this war seems to have been increased by the Egineans.

Most Greek historians, from Niebuhr onwards, make the war a great commercial, and therefore necessarily naval, struggle, connected with the northern colonization actively carried on by both towns. For this I can see no evidence, and set against it the distinct notice of Thucydides, that the first naval battle known to the Greeks was fought between Corinthians and Corcyraeans, in the B.C. But if this Lelantine war was really a naval war, it will still more certainly fall into the period in which I am disposed to place it, about 630 B.C. Apparently, the last colony founded by Chalcis in this epoch was Acantius, in 651 B.C. The exhaustion of a long war immediately following this date would account for the cessation of enterprise. The wars of the Lydians against Ionia seem to have recommenced in 644 B.C., and lasted for many years, so that it seems likely that the Asiatic cities could not interfere in a historic war from that date onward. This establishes a probable minor limit for the Lelantine war. For I do not think it at all likely that the war can fall much later—in the first place, because we should almost certainly know more about it, had it been going on during the next century; and secondly, it is known that *athletic* festivals were established at the opening of the sixth century in various places. There is no very distinct mention of the funeral games at Chalcis being remade after the war, but only for those poetical contests which were earlier and in fashion during the Epic period in Greek literature. This last argument being based on the

silence of scanty materials, is by itself not of much weight.

The silence of Herodotus and Thucydides about the plain of Lelantum, and their mention of the general character of the war, have led Hermann, and apparently E. Curtius, to assume two wars—an older, almost mythical, border feud, and a later far more important commercial war. I cannot see that there is evidence for this separation.

JOHN P. MAHAFFY.

THE PROSODY OF βλ AND γλ IN OLD COMEDY AND IN TRAGEDY.

[T may appear strange that, after the labours of eminent scholars, and the practical study of the Greek Drama necessitated by composition, anything remains to be said on Greek Prosody. But that something remains to be said may be seen from the following extracts :—

1. Dawes, in his *Miscellanea Critica*, published in 1745, lays down the following canon :—

“Vocalis brevis ante consonantes medias β, γ, δ, sequente quavis liquida praeter unicam ρ, syllabam brevem unquam terminat, sed sequentium consonarum ope longam semper constituit.”—*Misc. Crit.*, p. 353, ed. 1817.

2. Upon this Porson observes :—“Dawesius canonem paulo temerius, ut solet, statuit, nullam syllabam a poeta scenico corripī posse, in qua concurrant consonantes βλ, γλ, γμ, γν, δμ, δν. Haec regula, plerumque vera, non unquam ab Aeschilo, Sophocle, Aristophane violatur, ab Euripide credo nunquam. In *Med.* 1252, si tamen sanus sit, choricæ licentiæ concedendum ἐβλαστεν. *Troad.* 1261, Ἀπίδας ἐν σοι κατέγναψε βίου, lege κατέκναψε. *Elect.* 1021 corruptum credo.”—*Ad Hec.* 298, ed. 1847.

3. Porson elsewhere :—“Dawes lays down a rule which, if he had been content with calling it general, instead of universal, is perfectly right, that a syllable is long in which the middle consonants β, γ, δ, and liquids, except ρ, meet. But several passages, as well as the following, contradict this rule : *Oed. T.* 717, παῖδός δὲ βλάστας : *Elect.* 440, πασῶν βλαστε. These passages may be reduced to Dawes’ canon

by transposition. But they will lose all their energy by the reduction. See Brunck's note on Philoct. 222."¹—*Mus. Crit.*, No. iii., p. 334.

4. Elmsley says on Med. 288, ἔβλαψε δόξα μεγάλα τ' εἰργασται κακά, "Stobaeus ἔβλαψε γλώσσα. Male quod ad sensum attinet, ait Porsonus, neque metro convenienter. Dixit quidem Aeschylus, Ag. 1638, Ὀρφεὶ δὲ γλώσσαν τὴν ἐναντίαν ἔχεις. Idem apud Photium, v. ὀκτώπουν: κέντημα γλώσσης σκορπίου βέλος λέγω. Nec mirum qui dixerit, Suppl. 768, εἶναι. βύβλου δὲ καρπὸς οὐ κρατεῖ στάχυν. Sophocles etiam in initio senarii παίδων δὲ βλάστας, Oed. T. 717; πασῶν ἔβλαστε, El. 400; aliaque ejusdem licentiae exempla exhibet. Euripides autem ne in melicis quidem talia habet, nisi semel atque iterum, auctore Porsono ad Hec. 298. Quod infra, v. 1223, ἔβλαστεν primam corripit, choricæ licentiae concedendum censet Porsonus. Corruptum judicat quod legitur El. 1013, καίτοι δόξ' ὄτ' ἂν λάβῃ κακὴ Γυναικὶ γλώσση πικρότης ἔνεστί τις. Defendit hanc scripturam Seidlerus exemplis ex Aeschilo et Sophocle petitis. Fortasse scripsit Euripides: καίτοι δόξ' ὄτ' ἂν λάβῃ κακὴ Γλώσση γυναικὸς (vel γυναικῶν) πικρότης ἔνεστί τις."—Med., p. 304, ed. 1828. Porson had already condemned El. 1013: "corruptum credo" (ad Hec. 298).

5. Seidler has the following note on this verse:—"Corruptum hunc versum putat Porsonus, ad Hec. 302, ob correptam vocalem ante γλ. Sed bene defendit Erfurditius meus ad Soph. Aj., v. 1066, p. 19, not., citans Aeschyli fragm. apud Phot., v. ὀκτώπουν: κέντημα γλώσσης σκορπίου βέλος λέγω. Quid faciet Porsonus huic versui, Soph. Trach., 615:

σφραγίδι θέμενος τῇδ' ἐπ' ὄμμα γνῶσεται?²

¹ Sic, 222, in all the references I have seen. Perhaps Porson refers to 622, where πᾶσα βλάβη occurs: at least, there is no such note in the edition of Brunck of 1824 (London).

² The paternity of this monster is due to Brunck—Brunckius sane intollerabili audacia, says Schaefer. Whether Schaefer saw the false quantity or not is not clear.

Cf. ejus Praef. ad Hec., pp. xxxi. sqq., ed. Angl."—Seidler, Eurip. El., 1009 (Leipsig, 1812.)

6. Erfurdt's defence does not appear in Hermann's revision of his Ajax (Leipsig, 1848). Hermann observes of this revision: "Id sic feci ut non pauca, quibus vel nunc non opus esset, reciderem, vel quae non recte disputata esse intellexissem corrigerem," Erfurdt. vol. 3, vi. We may infer from this that Erfurdt's defence was not very brilliant. The value of what Hermann has omitted may be estimated by what he has retained on Soph. Ant., 296, κακὸν νόμισμ' ἐβλαστεῖ τοῦτο καὶ πόλεις:—"ἐβλαστε. Nota syllabam ante βλ correptam," Antig., 3rd ed., 1830. That this is no slip is proved by Erfurdt's reference to Trach. 401, Εὐβοίς· ὦν δ' ἐβλασταν οὐκ ἔχω λέγειν, as a proof of the shortness of the syllable before βλ.

7. Monk makes no allusion to the vexed question, but is apparently satisfied with regard to the power of βλ: the line Alc. 408,

ἴδε γὰρ ἴδε βλέφαρον καὶ

has for its antistrophic verse

σύ τέ μοι ξύγκασι κόρυα

—here γὰρ ἴ- answers to μοι resolved, and leaves -δε βλ long: duae breves syllabae respondent longae μοι in antistr. v. 421. Ed. 1852.

8. Bothe recognises the rule, and attributes it to Büttmann—a scholar who needs no stolen plumes. Bothe objects to the shortening of ἐβλαστον, "secus ac fieri docuit Buttmanus in vocalibus quas sequuntur litterae β, γ, δ, cum liquidis," Soph. Frag. 1, p. 107. Leipsig, 1846.

9. Lobeck, quoting Porson ad Orest., 64:—"Sed ubi verbum in brevem vocalem desinit eamque duae consonantes excipiunt quae brevem manere patiantur, vix credo exempla indubiae fidei inveniri posse in quibus syllabae istae producantur." Upon this Lobeck asks: "Quid igitur Aes-

chylo fiet, Pers. 779, Ξέρξης δ' ἐμὸς παῖς ὦν νέος νέα φρονεῖ, et Euripidi, Iph. T. 503, τί δὲ φρονεῖς ταῦτ', ἧ φρονεῖς οὕτω μέγα; Ion. 1350, ἔχει δέ μοι τί κέρδος ἧ τίνα βλάβην; Cur igitur non βλάβην τίνα scripsit quum litterae βλ antecedentem syllabam brevem esse patiantur? Haec causa fuit quare infra, v. 1114, ἔξεστι φρονεῖν, et in similibus, ν finale reddere nollem" (ad Ajac., v. 1109). Lobeck thus recognises no difference between the prosody of φρ and βλ. To this note Schaefer refers with apparent approbation: nonnulla digna sunt quae expendantur (ad Orest. 64).

10. Elmsley, reading Bacch. 1307 (Elm.)

ψ δῶμ' ἀνέβλεπ' (sic) ὃς συνεῖχες, ὦ τέκνον

(ἀνέβλεπ' a lapsus for ἀνέβλεφ'), has the following note:—"Omnes libri ἀνέβλεπεν, quod secundam necessario producit."

11. Hermann on the same verse (1301, Herm.) defends ἀνέβλεπεν:—"Matthiae recte videtur ἀνέβλεπεν servasse, quum licet rara tamen non sit illicita correptio ante βλ. Erfurdthus in Ed. Min. Antig., ad v. 296, ἔβλαστες ex Philoctet. 1311, et ἔβλαψε e fragm. incerti poetae apud schol. Soph., ad Antig. 620, et Athenagoram, p. 106, attulit. Addi possunt ἔβλαστε in Soph. El. 440, ἀπίβλαστον in Oed. Col. 533, et παιδὸς δὲ βλάστας, Oed. R. 717, δόμοισι βλάβαν, Trach. 842."

12. Hermann, on Ag., 400, recognises the power of γλ:—"Non est quod quis cum Empirio ἀχηνίαν prima syllaba longa dictum credat, pro quo ille, non sublato quod temere volebat mensurae vitio, ἀγληνίαις scribendum esse conjiciebat."—Aeschylus, vol. ii., p. 402.

These extracts are enough to show that we have no precise authority on the point. I have accordingly read with reference to this question the remains of the Old Comedy and of Tragedy.³

³ The editions referred to are:—For Aristophanes, Aeschylus, Sophocles, and Euripides, Dindorf's "Poetae

Scenici," 5th ed.; for the other comic writers, Meineke, and for the other tragedians, Wagner.

The following is the result :—

Of the Old Comedy we have 17,000 lines ;⁴ and in these, with a single very dubious exception, there is no instance of a vowel remaining short before βλ or γλ, while in every special case the vowel is made long by such position. In Tragedy we must distinguish between iambics, together with trochaics, on the one hand, and lyrics, including anapaests, on the other, as Porson had done.

We find that the usage of the three Tragedians is different. Aeschylus allows a vowel to remain short before βλ and γλ, in both iambics and in lyrics ; Sophocles never before βλ in both iambics and in lyrics, but never before γλ either ; and Euripides once only before γλ, in an iambic (1013), and once only before βλ, in a lyric (Med. 1256).⁵ It is remarkable that, with the single exception βύβλου, Aeschylus, Suppl., 761, the only permissive words in iambics and trochaics, in the three Tragedians, are γλῶσσα, and its cognates, and βλασάνω, with its cognates.

[I quote all the verses which exhibit βλ and γλ in crucial positions, as otherwise the violence of the tragic license would not be appreciated :—

OLD COMEDY.

ARISTOPHANES.

Acharnenses.

ἀποβλέπων ἐς τὸν ἀγρὸν εἰρήνης ἐρῶν.	32
σπεισάμενος εἶτα δύνασαι πρὸς ἔμ' ἀποβλέπειν.	291
διέβαλλε καὶ ψευδῇ κατεγλώττιζέ μου.	380
αὐλῶν κελυστῶν νιγλάρων συριγμάτων.	554

Equites.

ὑπογλυκαίνων ῥηματίοις μαγειρικοῖς.	216
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In the 11 comedies of Aristophanes there are 15,285 lines : the remainder may be safely allowed for the fragments.

⁵ This may be some confirmation of the view of my friend, Mr. Davies, that the "Medea" is not by Euripides : cf. Elmsl. Med., p. 236, n. 22.

κάπιορκῶ γε βλεπόντων.	298
ὑπὸ σοῦ μονωτάτου κατεγλωττισμένην σιωπᾶν.	352
ἔξεβλήθη πρεσβύτης ὡν ὅτι τοῦ σκώπτειν ἀπελείφθη.	525
ὦ Δῆμε μηδὲν δρῶντι μισθοῦ τρύβλιον ῥοφήσαι.	905

Nubes.

ἡ δ' αὖ μύρου κρόκου καταγλωττισμάτων.	51
νῆ τὸν Διόνυσον δεῦρό νυν ἀπόβλεπε.	91
εἴτ' ἐπ' Ὀλύμπου κορυφαῖς ἱεραῖς χιονόβλητοισι καθήσθε.	270
ἔπλαττεν ἔνδον οἰκίας ναῦς τ' ἔγλυφεν.	879
τοῖς Ἴπποκράτους υἱέσιν εἷξεις καὶ σε καλοῦσι βλιτομάμμαν.	1000
Φειδιππίδης μοι τὸν ἀκατάβλητον λόγον.	1229

Vespaee.

ἡ λαχανόπωλις παραβλέψασά φησι θάτέρφ.	497
ἐς σέ βλέψαι καὶ τὸν ταμίαν ὅπότ' ἄριστον παραθήσει.	613
τάδε κέκτημαι πρόβλημα κακῶν σκευὴν βελέων ἀλεωρήν.	615
Δάβητι μάρτυρας παρῆναι τρύβλιον.	937
κἄλλως κυμινωπριστοκαρδαμογλύφον.	1357

Rax.

ἔβλεπεν πρὸς τοὺς λέγοντας οἱ δὲ γινώσκοντες εὖ.	635
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Aves.

τρέχω ἔπ' ἀφύας ἐγὼ λαβὼν τὸ τρύβλιον.	77
τῷ τε τρυβλίῳ καθίει.	387
κἀγὼ πίπτω μελλῶ τε βοᾶν ὃ δ' ἀπέβλισε θοῖμάτιόν μου.	498
ἐξ οὗ περιτελλομέναις ὥραις ἔβλασται Ἔρως ὁ ποθεινός.	696
ἐγὼ μελιγλώσσων ἐπέων ἰεὺς ἀοιδὰν.	908
ἔνεστι καὶ τὰ πέδιλα λαβὲ τὸ βιβλίον.	974
καὶ σπλάγχχνα διδόν' ἔνεστι λαβὲ τὸ βιβλίον.	976
καὶ ταῦτ' ἔνεστ' ἐνταῦθα λαβὲ τὸ βιβλίον.	980
οὐδὲν λέγειν οἶμαί σε λαβὲ τὸ βιβλίον.	986
καὶ ταῦτ' ἔνεστ' ἐνταῦθα λαβὲ τὸ βιβλίον.	989
ἔπεμψε τίς σε δεῦρο φαῦλον βιβλίον.	1024
τουτὶ τί ἔστιν αὖ κακὸν τὸ βιβλίον.	1036
κἄπειτ' ἂν ἅμα κατῆρον ἐς τὰ βιβλία.	1288

Lysistrata.

περὶ τῶν Ἀθηνῶν δ' οὐκ ἐπιγλωττήσομαι.	37
ὁ δέ μ' εὐθὺς ὑποβλέψας ἂν ἔφασκ' εἰ μὴ τὸν στήμονα νήσω.	519
ἀλλ' ἦνπερ ὁ τε γλυκύθυμος Ἴερως χῆ Κυπρογένει' Ἀφροδίτῃ.	551

Thesmophoriazusae.

καὶ θηλυδριῶδες καὶ κατεγλωττισμένον.	131
κερδῶν οὐνεκ' ἐπὶ βλάβῃ.	360
ὑποβλέπουσ' ἡμᾶς σκοποῦνταιί τ' εὐθέως.	396
ὥς γλυκερὸ τὸ γλῶσσ' ὥσπερ Ἀττικὸς μέλις.	1192

Ranae.

καὶ γὰρ παραβλέψας τι μεираκίσκης.	409
ὁ Διτύλας χῶ Σκεβλύας χῶ Παρδόκας.	608
τῆς μαινίδος τὸ τρύβλιον.	985
καὶ τί βλάπτουσ' ὦ σχέτλι' ἀνδρῶν τὴν πόλιν ἀμαὶ Σθενόβοιαι.	1049
τοῖς ἀνθρώποις φαίνονται εἶναι τοῦτ' οὖν ἐβλαψα τί δράσας.	1064
βιβλίον τ' ἔχων ἕκαστος μανθάνει τὰ δεξιὰ.	1114
λέγ' ἕτερον αὐτῷ σὺ δ' ἐπιτῆρει τὸ βλάβος.	1151
Αἰσχυλ' ἀνύσας σὺ δ' ἐς τὸ κακὸν ἀπόβλεπε.	1171
ἐμβὰς καθήσθω ξυλλαβὼν τὰ βιβλία.	1409
βραδὺς φανέεται μεγάλη δὲ βλάπτειν ταχύς.	1428

Ecclesiazusae.

καὶ τοῦτ' ἴσασιν ἀλλὰ καὶ τὰ τρύβλια.	252
τί δ' ἦν Νεοκλείδης ὁ γλάμων σε λοιδόρῃ.	254
πρῶτος Νεοκλείδης ὁ γλάμων παρείρπυσεν.	398
ὁ δ' ἀναβοήσας καὶ περιβλέψας ἔφη.	403
σαντοῦ παραλείφειν τὰ βλέφαρα τῆς ἐσπέρας.	406
παραβλέπονσα θάτέρῳ.	498
δῆμον ἐπαγλαῖοῦσα.	575
τὰ τῶν γυναικῶν ἀνακαθαίρει τρύβλια.	847
καὶ τῶν κριτῶν εἰ μὴ τις ἐτέρωσε βλέπει.	1142
σὺ δὲ ταῦτ' ἀκροασάμενος ταχὺ καὶ ταχέως λαβὲ τρύβλιον.	1175

Plutus.

εἰ πάλιν ἀναβλέψειας ὥσπερ καὶ πρὸ τοῦ.	95
οὐ βούλομαι γὰρ πάλιν ἀναβλέψαι τί φῆς.	117
ἐὰν ἀναβλέψῃς σὺ κἂν μικρὸν χρόνον.	126
καὶ συντεταμένως κοῦ κατεβλακευμένως.	325
ἀλλ' οὐδὲ τὸ βλέμμ' αὐτὸ κατὰ χώραν ἔχει.	367
βλέψαι ποιῆσαι νῦν τίνα βλέψαι φράσον.	401
ἔπειτ' ἀναβλέψας ὁρῶ τὸν ἱερέα.	676
ὅτι βλέπειν ἐποίησε τὸν Πλουτὸν ταχὺ.	746
εἰ πάλιν ἀναβλέψειεν ἐξ ἀρχῆς ὁ δέ.	866
ἀφ' οὗ γὰρ ὁ θεὸς οὗτος ἤρξατο βλέπειν.	968
ἐπὶ τῆς ἀμάξης ὅτι προσέβλεψέν μέ τις.	1014
ἐς ταυτὸν ὑμᾶς ξυγκυκῆσας τρύβλιον.	1108

Fragmenta.

τὸν ἄνδρα τόνδ' ἢ βιβλίον διέφθορε.	fr. 418, i., Tag.
ὀξυγλύκειάν τᾶρα κοκκιεῖς ῥόαν.	fr. 506, <i>sed vid. post.</i>

OTHER WRITERS OF OLD COMEDY.

I. *Chionides.*

ἐν ἐννέ' ἂν χορδαῖς κατεγλυκῆνατο.	Ptoch., i. 2.
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II. *Cratinus.*

βρύκει γὰρ ἅπαν τὸ παρὸν τρίγλῃ δὲ κἂν μάχοιτο.	Drapet., ii. 2.
Αἰγυναῖαι καταβέβληνται δρυπεπεῖς βώλοις τε κομῶσαι.	
	Plut., ii. 3.
οὐδ' Αἰζωνιδ' ἐρυθρόχρων ἐσθίειν ἔτι τρίγλην.	Troph., i. 1.
τρίγλη δ' εἰ μὲν ἐδηδοκοίη τένθου τινὸς ἀνδρός.	incert. xiv.

III. *Crates.*

καρδοπογλύφος.	Geit., iii.
οὐκοῦν ἔτνους χρὴ δεῦρο τρυβλίον φέρειν.	Her., ii. 1.
καὶ γὰρ ἐβλίμαζον αὐτήν ἢ δ' ἔφροντιζ' οὐδὲ ἔν.	incert., iii. 2.

IV. *Pherecrates*.

καὶ νιγλάρους ὥσπερ τε τὰς ῥαφάνους ὀλην. Cheir., i. 25.⁶
ἀχθόμεθ' ἤν' ἔλθῃ καὶ ὑποβλέπομεν παρεόντα. *ib.*, iii. 2.

V. *Hermippos*.

χλανίδες δ' οὐλαι καταβέβληνται. Moer., ii. 1.
ναυσὶν ἐπὶ γλαφυραῖς ὅπῃ δίχα θυμὸν ἔχουσιν. Phormoph., i. 11.
ἰστία καὶ βύβλους ἀπὸ δ' αὖ Συρίας λιβανωτόν. *ib.*, 13.

VI. *Eupolis*.

τὴν πανδοκεύτριαν γὰρ ὁ γλάμων ἔχει. Ages., xiv.
τοιαῦτα μέντοι νιγλαρέων κρούματα. Demi., xxvii.
ὑμεῖς γὰρ ὦ φρενοβλαβεῖς. Maric., v. 7.
ὁ στρεβλὸς οὐκ ἄλλ' ὁ μέγας οὔνοκίνδιος. *ib.*, vi. 2.
ἐκ τῶν ἀγρῶν ἤκουσιν ἐβλαστηκότες. incert., xli.

VII. *Plato*.

στεφανοῦσθ' ὑπογλωττίσιν ὅταν πίνῃτέ που. Zeus Cacus., iv. 2.
ὠτογλυφίδα λαβοῦσ' ἀνασκαλεύεται. Symmach., iii. (Corr. Mein.)
τουτὶ διελθεῖν βούλομαι τὸ βιβλίον. Pha., i. 2.
τρίγλῃ δ' οὐκ ἐθέλει νέρων ἐπιήρανος εἶναι. *ib.*, 19.

VIII. *Theopompus*.

ὄνῳ μιγείσης μητρὸς ἐβλαστέν πόλει. Aphrod., i. 2.
(Corr. Mein.)

IX. *Nicophon*.

βιβλιοπώλαις κοσκινοπώλαις. Chirogast., i. 4.
ἄνθρακίδας τρίγλῃ σαργὸς κεστρεὺς πέρκη κορακίνος. Poleis, i. 3.

X. *Demetrius*.

εἰς γὰρ τὸ κέρδος μόνον ἀποβλέπουσ' αἰὲ. incert., ii. 2.

⁶ Attributed also to Aristophanes and Nicomachus.

Thus, in the remains of the Old Comedy there is (with one very doubtful exception) no instance of a vowel remaining short before βλ or γλ. What is singular is, that the pronunciation of Comedy—and apparently that of Common Life—was in this case more deliberate than that of Tragedy. The prosodial weight of βλ and of γλ will be felt in such words as *ob-long* and *gig-lamps*, as opposed to *o-blige* and *poly-glot*.

The exception referred to is Autocrates,

ἄμνοι δὲ βληχάζουσ' ἀγαλακτίας ὑπό. incert. i.

That Autocrates belonged to the Old Comedy rests on the authority of no one prior to Suidas, as Meineke, i. 270, points out. Suidas describes him as also a most prolific writer of Tragedy. His position in Old Comedy is therefore as dubious as it is in Tragedy, and Meineke, i. 295, treats him as of the Middle or New. The line is, therefore, a very dubious exception.

TRAGEDY.

In Tragedy we must distinguish between iambics, including trochaics, on the one hand, and lyrics, including anapaests, on the other.

A. Iambics and Trochaics. Short Vowels Lengthened.

I. AESCHYLUS.

Prom. V.

οἱ πρῶτα μὲν βλέποντες ἔβλεπον μάτην.	447
καταβασμὸν ἐνθα Βυβλίνων ὀρῶν ἄπο.	811
σύ θην ἃ κλήξεις ταῦθ' ἐπιγλώσσει Διός.	928

Sept. c. Theb.

No instance.

Persae.

λῆξαι θεοβλαβοῦνθ' ὑπερκόπῃ θράσει.	831
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IN OLD COMEDY AND IN TRAGEDY. 341

Suppl.

καὶ πρῶρα πρόσθεν ὄμμασι βλέπουσ' ὁδόν. 716

Agam.

τὰ δ' ἄλλα σιγῇ βοῦς ἐπὶ γλώσση μέγας. 36
Πριάμον· δίκας γὰρ οὐκ ἀπὸ γλώσσης θεοὶ 813
ἐν ὀψικοίτοις δ' ὄμμασι βλάβας ἔχω. 889
οὐ Σύριον ἀγλαῖσμα δώμασιν λέγεις. 1312

Choeph.

εἶναι τόδ' ἀγλαῖσμά μοι τοῦ φιλάτου. 193
φήμη πονηρᾷ μῆδ' ἐπιγλωσσῆ κακὰ. 1045

Eumen.

ικέτης προσήλθες καθαρὸς ἀβλαβῆς δόμοις. 474

Fragmenta.

ἀλλ' ἔστι κῆμοι κλῆς ἐπὶ γλώσση φύλαξ. fr. 307
ὀξυγλύκειάν τᾶρα κοκκίεις ῥόαν. fr. 328

SOPHOCLES.

Ajax.

οὐδεὶς ἐρεῖ ποθ' ὡς ὑπόβλητον λόγον. 481
ἐμοὶ γὰρ οὐκέτ' ἐστὶν εἰς ὃ τι βλέπω. 514
τοιούδ' ἀποβληθεῖσαν ἀρτίως φύλου. 941

Antigone.

No instance.

Oed. R.

ἀστεργές οὐδὲν γῆς δ' ἄπεισιν ἀβλαβῆς. (al. ἀσφαλῆς). 229
δοκοῖμ' ἔχειν σφᾶς ὥσπερ ἡνίκ' ἔβλεπον. 1470
πᾶς ὃν ἐζήλου πολιτῶν καὶ τύχαις ἐπέβλεπον. 1526

Oed. C.

ἀλλ' ὦ τέκνον θάκησιν εἴ τινα βλέπεις. 9
τὸ σὸν δ' ἄφικται δεῦρ' ὑπόβλητον στόμα. 794
τίνοι' ἂν οὐδὲ τοῦνδικον περιβλέποις. 996

Electra.

ὁ πάντ' ἀναλκις οὔτος ἡ πᾶσα βλάβη.	301
μὴ σὺν φθόνῳ τε καὶ πολυγλώσσῳ βοῇ.	641
ἀλλ' ὡδέ μ' αἰεὶ ζῶσαν ἀβλαβεῖ βίῳ.	650
εἰ τήνδ' ἐπανσας τῆς πολυγλώσσου βοῆς.	798
μή του τόδ' ἀγλαῖσμα πλὴν κείνου μολεῖν.	908

Trachiniae.

αὐτὸς δεδορκῶς κοῦ κατὰ γλώσσαν κλύων.	747
πρὸς τῆς πατρῆας καὶ πολυγλώσσου δρυός.	1168

Philoctetes.

οἴμοι τάλας ἡ κείνος ἡ πᾶσα βλάβη.	611
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EURIPIDES.

*Rhesus.*⁷

No instance.

Alcestis.

μαστῶ γυναικὸς σῆς ὑπεβλήθην λαθρὰ.	639
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Medea.

No instance.

Hippolytus.

ἂ σ' οὔτ' ἐπ' αἰσχροῖς οὔτ' ἐπὶ βλάβῃ φρενῶν.	511
ἀκτὰς ἀποβλέψαντες ἱρὸν εἶδομεν.	1206

Andromache.

ἀλλ' εἴμ' ἐπεὶ τοι κοῦ περίβλεπτος βίος.	89
ἀνὰ στομ' αἰεὶ καὶ διὰ γλώσσης ἔχειν.	95
ὀρᾶς ἄγαλμα Θέτιδος ἔς σ' ἀποβλέπον.	246
ἀλλ' ἔς γε τοιόνδ' ἄνδρ' ἀποβλέψας μόνον.	762

Troades.

No instance.

⁷ The continuous and rapid reading entailed by the subject has left in me the strongest conviction that the Rhesus is not by any of the three.

IN OLD COMEDY AND IN TRAGEDY. 343

Hecuba.

γυναιξί παρθένων τ' ἀπόβλεπτος μέτα.	355
ὦ θύγατερ οὐκ οἶδ' εἰς ὃ τι βλέψω κακῶν.	585
τί δ' ὦ τάλαινα σῆς κακογλώσσου βοῆς.	661

Orestes.

No instance.

Phoenissae.

Πολύνεικες· ἐς γὰρ ταυτὸν ὄμμασι βλέπων.	458
περιβλέπεσθαι τίμιον κενὸν μὲν οὖν.	551

Supplices.

ἀλλ' ὦ γεραιαί, στείχετε γλαυκὴν χλόην.	258
τοῖς κερτομοῦσι γοργὸν ὥς ἀναβλέπει.	322
εἰσαῦθις ἔβλαψ' εἴτα διαβολαῖς νέαις.	415
οὐκ ἂν δύναίτο πρὸς τὰ κοῖν' ἀποβλέπειν.	422

Heraclidae.

ὕμᾱς τ' ὀνήσω τούσδε τε βλάψω θανῶν.	1044
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Hercules Furens.

ὁρᾷτέ μ' ὅσπερ ἦν περίβλεπτος βροτοῖς.	508
καὶ φῶς ἀναβλέψασθε τοῦ κάτω σκότου.	563
ὅταν δὲ κρηπίς μὴ καταβληθῇ γένους.	1261

Ion.

ἐκ γῆς πατρός σου πρόγονος ἔβλασται πατήρ.	267
εὖ φρονεῖς μὲν ἢ σ' ἔμηνε θεοῦ τις ὦ ξένη βλάβη.	520
ὅστις δεδοικῶς καὶ περιβλέπων βίαν.	624
δράκοντ' ἀναβλέποντα φοινίαν φλόγα.	1263
ἔχει δέ μοι τί κέρδος ἢ τίνα βλάβην.	1350

Helena.

Εἰδὼ τὸ μητρὸς ἀγλαῖσμ' ὅτ' ἦν βρέφος.	11
ἔως μὲν οὖν φῶς ἡλίου τόδ' ἔβλεπε.	60
ὅστις μὲν οὖν ἐς μίαν ἀποβλέπων τύχην.	267
σὺ δ' αὖ κέλευθον εἴ τις ἔβλαψεν ποδὶ.	868

Electra.

No instance.

Bacchae.

ὡς πασσαλεύσῃ κρᾶτα τριγλύφοις τόδε. 1214
 ᾧ δὼμ' ἀνέβλεφ' ὅς ξυνείχες ᾧ τέκνον. 1309
 (*Sic Elmsl.—Vid. post.*)

Iph. in Taur.

σιγῷ τὸ δ' Ἄργος πρὸς σέ νῦν ἀποβλέπει. 928

Iph. in Aul.

ἐν πᾶσι κλεινοὶ καὶ περίβλεπτοι βροτοῖς. 429
 εἰς ἑμ' Ἑλλάς ἡ μεγίστη πᾶσα νῦν ἀποβλέπει. 1378

Cyclops.

πῶς μοι κατ' ἄντρα νεόγονα βλαστήματα. 206
 τοιόσδ' ὁ δαίμων οὐδένα βλάπτει βροτῶν. 524

Fragmenta.

εἴ δεινὸν ἔστιν εἰ φέροι τινα βλάβην. fr. 255, 2, Archelaus.
 κρείσσων δὲ βαιὸς ὄλβος ἀβλαβῆς βροτοῖς. fr. 822, 1, Phrixus.

Specimens short in Iambics and Trochaics.

AESCHYLUS.

Prom. V.

No instance.

Sept. c. Th.

No instance.

Persae.

No instance.

Suppl.

εἰς αἶψα γὰρ ἄλλον γῆνδε βλαστημὸν λέγεις. 317
 εἰς αἶψα γὰρ ἄλλον δὲ καρπὺς οὐ κρατεῖ στάχυν. 761

Agamemnon.

Ὅρφεϊ δὲ γλώσσαν τὴν ἐναντίαν ἔχεις. 1629

Choeph.

No instance.

Eumenides.

No instance.

Frag.

κέντημα γλώσσης σκορπίου βέλος λέγω. fr. 165, 3, Xantr.

SOPHOCLES.

Ajax.

No instance.

Antigone.

No instance.

Oedipus Rex.

παιδὸς δὲ βλάστας οὐ διέσχον ἡμέραι. 717

Oedipus Coloneus.

ὅς οὔτε βλάστας πω γενεθλίους πατρός. 972

Electra.

πασῶν ἔβλαστε τάσδε δυσμενεῖς χοὰς. 440

Trachiniae.

No instance.

Philoctetes.

ἐξ ἧς ἔβλαστες οὐχὶ Σισύφου πατρός. 1311

Fragmenta.

ἐπεὶ δὲ βλάστοι τῶν τριῶν μίαν λαβεῖν. fr. 124, 1.

οὐ γὰρ ἐκ μιᾶς ἔβλασθεν ἄλλ' ὁ μὲν Νηρηίδος.

fr. 491, Scythae (as restored by Valckenaer.)

EURIPIDES.

Electra.

γυναῖκα γλώσση πικρότης ἔρεστί τις. 1014

Fragmenta.

πτῶχ' ἀμφίβλητα σώματος λαβὼν ῥάκη.
fr. 698, 1, Telephus. *Sed vid. post.*

B. Lyrics and Anapaests. Short Vowels lengthened.

AESCHYLUS.

Prometheus Vincetus.

καί μ' οὔτι μελιγλώσσοις πειθοῦς. 172
χαριτογλωσσεῖν ἐνι μοι φέρε γὰρ. 294

Sept. c. Theb.

αἰαὶ πικρογλώσσους ἀράς. 787

Pers.

τίπτε Δαριὰν μὲν οὕτω τότ' ἀβλαβῆς ἐπῆν. 555

Eumenides.

ἄρα φρονούσα γλώσσης ἀγαθῆς. 987

SOPHOCLES.

Ajax.

οὔτε γλυκὺν αὐλῶν ὄτοβον. 1202

Oed. T.

ἀγλαῶπι - υ -. 214

Oed. C.

κλῆς ἐπὶ γλώσσῃ βέβακεν προσπόλων Εὐμολπιδᾶν. 1052

Electra.

μηδέ ποτ' ἀγλαίας ἀποναίατο. 211
ἐν τίνι τοῦτ' ἔβλαστ' ἀνθρώπων. 238

Fragmenta.

οὐ χρεὶ ποτ' ἀνθρώπων μέγαν ὄλβον ἀποβλέψαι. fr. 520, Tereus ?

EURIPIDES.

Rhesus.

No instance.

Alcestis.

ὑπ' ὀφρύσι κυνανυγέσι βλέπων πτερωτὸς Αἴδας. 261

ἴδε γὰρ ἴδε βλέφαρον. 398

Medea.

No instance.

Hippolytus.

No instance.

Andromache.

No instance.

Troades.

No instance.

Hecuba.

No instance.

Orestes.

Δωρικός τε τριγλύφους. 1372

Phoenissae.

οὐδ' ὑπὸ παρθενίας τὸν ὑπὸ βλεφάροις. 1487

Supplices.

ἔσιδούσ' οἰκτρὰ μὲν ὅσων δάκρυ' ἀμφὶ βλεφάροις. 47

Heraclidae.

No instance.

Hercules Furens.

No instance.

Ion.

προσ-

ῥῶπων καλλιβλεφάρων φῶς	189
αἰλίου δ' ἀναβλέπει λαμπάσιν.	1467

Helena.

No instance.

Electra.

οὐκ ἐπ' ἀγλαΐαις φῶλαι, θυμὸν, οὐδ' ἐπὶ χρυσέοις ὄρμοισι πετότα- μαι.	175
χρυσέα τε χαρίσαι προσθήματ' ἀγλαΐας.	192
πήδημα κονφίζουσα σὺν ἀγλαΐῃ.	861

Bacchae.

No instance.

Iphigenia in Tauris.

No instance.

Iphigenia in Aulide.

ὥς ἐκ μεγάλων ἐβλαστήκασ'.	595
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Fragmenta.

εὖ δεινόν ἐστιν εἰ φέροι τινὰ βλάβην.	fr. 255, 2, Archelaus.
κρείσσων δὲ βαιὸς ὄλβος ἀβλαβῆς βροτοῖς.	fr. 822, 1, Phrixus.
πόθεν ἔβλασταν τίς ρίζα κακῶν.	fr. 904, 11, incert.

Lyrics and Anapaests. Short Vowels left Short.

AESCHYLUS.

Prometheus Vinc-tus.

No instance.

Sept. c. Theb.

No instance.

Persae.

οὐδ' ἔτι γλώσσα βροτοῦσιν. 591

Supplices.

No instance.

Agamemnon.

No instance.

Choephoroe.

ὁτοτύζεται δ' ὁ θήσκων, ἀναφαίνεται δ' ὁ βλάπτων. 327
πλάθουσι βλαστοῦσι καὶ πεδαίχμιοι. 589

Eumenides.

No instance.

Fragmenta.

No instance.

SOPHOCLES.

Ajax.

No instance.

Antigone.

No instance.

Oedipus Rex.

No instance.

Oedipus Coloneus.

ματρός κοινᾶς ἀπέβλαστον ὠδίνος. 534
οὐδ' ἐν τῇ μεγάλῃ Δωρίδι νάσῃ Πέλοπος πώποτε βλαστον. 695

Electra.

ἔσορώμενοι τροφᾶς κηδομένους ἀφ' ὧν τε βλάστω- 1060
διδύμαν ἑλοῦσ' Ἑρινὺν τίς ἂν εὐπατρις ὧδε βλάστοι. 1081
βεβῶσαν ἃ δὲ μέγιστ' ἔβλαστε νόμιμα τῶνδε φερομένην. 1096

Trachiniaiæ.

μεγάλαν προσορῶσα δόμοισι βλάβαν νέων.

842

Philoctetes.

No instance.

Fragmenta.

ἡμέρα τοὺς πάντας οὐδείς ἔξοχος ἄλλος ἔβλασεν ἄλλον.

fr. 518, 2, Tereus.

EURIPIDES.

Medea.

ἔβλασεν θεοῦ δ' αἵματι πίτνειν.*

1256

For the fragments of the other tragic poets I have used Wagner's edition, Warsaw, 1848. I can only find the following :—

Frag. incert.

ὦ χρῦσε βλάστημα χθονός.

fr. 80, attributed by some to Euripides.

τὸν νοῦν ἔβλαψε πρῶτον ᾧ βουλευέται.

fr. 186, 2, incert.

The single case where ε is shortened before βλάπτω, in an alleged tragic iambic, is found in the Scholiast, Soph., Antig., 620: μετὰ σοφίας γὰρ ὑπό τι νος αἰοίδιμον καὶ κλεινὸν ἔπος πέφανται, τὸ

ὅταν δ' ὁ δαίμων ἀνδρὶ πορσύνῃ κακὰ,

τὸν νοῦν ἔβλαψε πρῶτον ᾧ βουλευέται.

This of course is tragic in tone and, except ἔβλαψε, tragic in metre. But it might equally belong to New Comedy. The Scholiast's reference ὑπό τι νος is rather vague. I am certain it is later than Lycurgus. Lycurgus says:—καὶ μοι

* The solitary instance. *Vid.* notes, p. 335.

δοκοῦσι τῶν ἀρχαίων τινὲς ποιητῶν ὥσπερ χρησμοὺς γράψαντες
τοῖς ἐπιγιγνομένοις τάδε τὰ ἱαμβεῖα καταλιπεῖν·

ὅταν γὰρ ὀργὴ δαιμόνων βλάβητι τινὰ
τοῦτ' αὐτὸ πρῶτον ἐξαφαίρεται φρενῶν
τὸν νοῦν τὸν ἐσθλόν, εἰς δὲ τὴν χεῖρῳ τρέπει
γνώμην, ἵν' εἰδῇ μηδὲν ὧν ἀμαρτάνει.

Lycurgus was fond of tragic quotations, and if he was struck by the oracular character of the sentiment, he would naturally have given it in its most oracular form.

The Scholiast's *πέφανται* appears, too, a sort of rendering of *χρησμοὺς γράψαντες*, like the solemn commencement of Aeschylus, *πέφανται δ' ἐκγόνοις*, Ag., 374.

The shortness of the vowel before βλ in βλάβῳ had been led up to by Aeschylus, Choeph., 327,

δοτούζεται δ' ὁ θνήσκων, ἀναφαίνεται δ' ὁ βλάβῳ,

and by Sophocles, Trach., 842,

μεγάλαν προορώσα δόμοισι βλάβαν.

Both passages are choral.

As to the passage from the Electra :—

καίτοι δόξ' ὅταν λάβῃ κακὴ
γυναικα γλώσση πικρότης ἔνεστί τις,

the following arguments strongly confirm Porson's view that it is corrupt. The MS. which Musgrave designates γ is copied from an abbreviated MS., and the copyist did not understand the abbreviations. In fact he over and over leaves out terminations. Now if the line ran γλώσση γυναικὸς πικρότης ἔνεστί τις, with γυναικὸς written with the contracted symbol for ος, the copyist would read it γυναικα, and then transpose for the sake of the construction. Every one must feel it is more Greek to construe

καίτοι δόξ' ὅταν λάβῃ κακὴ sc. γυναικα,
γλώσση γυναικὸς πικρότης ἔνεστί τις,

than to take it *δταν δόξα κακὴ λάβη γυναῖκα, γλώσση π. ε. τ.*, for the sense is, under certain conditions a woman's tongue is bitter, and not, under certain female conditions her tongue is bitter.

But, even granting that the line is not corrupt, the play itself is a museum of metrical pathology;

ἄρα κλύουσα, μήτηρ, εἴτ' ἔρξεις κακῶς

is not the sole monstrosity. Abnormal anapaests and glyconics swell the ghastly collection, and strophes are exhibited with which no antistrophe articulates.

A fragment is ascribed to the Telephus of Euripides by Wagner, *Fr.* 688, and by Dindorf, *Fr.* 698. Wagner quotes no context; Dindorf's extract is as follows:—

"Diogenes, *Epist.*, 5, in *Notices et Extr.*, 10, 2, p. 241: 'Τήλεφόν τε τὸν Ἡρακλέους, ἡνίκα εἰς Ἄργος παρέγενετο, πολὺ χείρονι σχήματι τοῦ ἡμετέρου ἐμφανισθῆναι (*tragici poetae dicunt*)

*πτῶχ' ἀμφίβληστρα σώματος λαβὼν ῥάκη
ἀρκτηρία τύχης."*

According to Dindorf, Diogenes reads *ἀμφίβληπτα* and *λαβόντα*.

As to the authorship, Aeschylus, Sophocles, Agathon, Iophon, Moschion, and Cleophon all made Telephus their theme. Agathon, in his Telephus, has closely copied the Telephus of Euripides in one remarkable fragment, *Ag., Tel.*, 1, *Wag.*, p. 75; and why not his *ῥακώματα*?

The Telephus of Moschion gives Heeren an opportunity of attacking Porson—a temptation which apparently few Germans can resist—with the usual result. If the fragment does contain any remains of Euripides, or of any tragic poet, the reading of Diogenes *λαβόντα* shows that it is quoted unmetrically; why may it not have been

⁹ This is the only reference I have taken on trust; the book is not here.

ὥς πτωχὸν ἀμφίβλητα σώματι ῥάκη
τύχης λαβόντ' ἀλκτῆρια, κ. τ. λ.,

something of the kind? Ἀμφιβάλλω takes the dative or usative, and the prosody of ῥάκος may have been forgotten or, what is much more likely, never known.

Lycophron is cited, not as an authority, but as illustrating the knowledge of Attic prosody in Alexandria. The comic of Theocritus is to be regarded in a similar manner. Of 1474 lines, we have—

A. *Vowels Lengthened.*

ἡ δ' εἰς τέραμνα δουρατογλύφου στέγης.	361
ὅς ὄψεται μὲν τοῦ μονογλήνου στέγας.	659
ναῦται καταβλώξουσιν ἔνθα Λαμπέτης.	1068
χρησμοῖς ἱατροῦ σὺν πολυγλώσσῃ στρατῷ.	1377

B. *Vowels remaining Short.*

ἄς δὲ Πρόβλαστος ἐξεπαίδευσεν θρασύς.	577
ἐν ἀμφιβλήστρῳ συντεταργανωμένος.	1101
σὺν θηρὶ βλώξας τῷ σπᾶσαντι δητίας.	1327
ἐν ἀμφιβλήστροις ἔλλοπος μυνδοῦ δίκην.	1375

With regard to the moral aspect of the question, it is useful to observe the petulance which the very name of Porson calls forth from some Germans. Even Hermann, in Aeschylus, the proofs of which he corrected, knowing that death was nigh, cannot refrain from a sneer at his great scholar:—*Porsonus enim si praesul soloecismum facit, quis redamtruet olli?*—Aesch., ad Ag. 713, vol. ii., p. 427. The sneer is to be the more regretted as this is one of the very few cases in which Hermann is right, and Porson wrong.

As a practical hint, versifiers ought never to shorten vowels before βλ and γλ in comic composition. In tragic, license ought to be restricted to the permissive words

βλασάνω and γλῶσσα. Hermann's ἀνῆβλῆπεν is inadmissible for two reasons: first, βλέπω is not a permissive word until New Comedy; and second, in the case of the permissive βλασάνω and γλῶσσα, the arsis could not be resolved.

As to the question itself, it might easily have been settled by any one who had nothing else to do in one week; and I derive some satisfaction from the certainty that every line of Greek poetry could, with reference to any moot point, be read over within a single month.

THOMAS MAGUIRE.

GALWAY.

HORACE AND LUCILIUS.¹

[F there is one proposition relating to classical literature on which there is no real difference of opinion, either among the learned or the merely educated, it is that we have in the Satires and Epistles of Horace a series of pictures of contemporary social life in Rome, and a body of sound practical maxims for the ordering of the life of the man of the world. That these social and moral essays, as we have them, may be broadly thus described I should be loth to deny ; but it seems to me that the proper view of the poet's relation to his materials is to some extent missed in estimating the value of the works of Horace as literary products, and as evidence for the features of society in ancient Rome. The question which I wish to ask concerning the Satires and Epistles of Horace is this :—What was the relation of Horace to Lucilius ? It seems to me that, on rightly viewing the evidence furnished by the fragments of Lucilius, we shall find that Horace's debt to him is very much greater than is generally supposed.

It is well known that Horace was familiar with the works of Lucilius, and some of the best editions of Horace contain references to many (by no means all) of the passages which he borrowed from the author of the *Satyræ*. But it has not been observed that the meagre remains of Lucilius contain expressions betraying the origin of some of the most celebrated essays of Horace ; so that if the evidence afforded by them be rightly studied, we shall perhaps not err in making Horace a moderniser of Lucilius, as Pope of Dr. Donne, or in looking on Horace's

¹ Delivered as a lecture in Trinity College, Dublin, Trinity Term, 1876.

Satires and Epistles as restorations of Lucilius, just as Pope's January and May is a restoration of Chaucer's tale. Indeed, Pope's relation to Chaucer was very like Horace's relation to Lucilius. Pope saw that some of the tales of Chaucer were of such a character that they could be made very pleasing and interesting to the court of Queen Anne: but that their almost unintelligible archaism, as well as their coarseness of treatment, would prevent their ever being much read in their original form; and he wove, out of the strong homespun of Chaucer and the frigid classicality of the eighteenth century, a brilliant kind of stuff that suited well the

Teacup-times of hood and hoop,
And when the patch was worn.

Lucilius had merits and defects very similar to those found in Chaucer by Pope. He affords us an instance of ruggedness and originality perhaps unique among the Roman poets. Horace, who can hardly understand how a Roman, how any man but a Greek, should originate anything in literature, looks to the Greek Comedy as the source of the inspiration of Lucilius; but even antiquity does not confirm the judgment of Horace,² which indeed seems to have no basis but the need he felt for tracing to a Greek source every literary runnel, however meagre.

The fragments of Lucilius, as they have come down to us, bear hardly any traces of that great intellectual culture and moral breadth which are ascribed to him by the voice of antiquity, and which made his *Saturae* so popular, in spite of his carelessness of style, and ruggedness of metre.³

² Lydus, equally in error, says that Lucilius followed Rhinthon.

³ Lucilius did not even refrain from that misapplication of the figure *tnesis* which is so strongly exemplified in the Ennian verse beginning *Massili-* and

ending *-tanos*, and in the well-known *cere- comminuit -brum*. Ausonius, Ep. 5, 35, says,
invenies praesto subiuncta petorrita mala
villa Lucani- mox potieris -aca.
resciso disces componere nomine verum,
Lucili vatis sic imitator eris.

These fragments have been handed down to us solely by the grammarians, who, as they quote Lucilius chiefly to illustrate irregularities of diction and idiom, or archaisms of expression, have perhaps produced an undue impression of the ruggedness of the poet, and (it must be confessed) have rescued from oblivion hardly a sentiment which did not deserve that fate. Yet the poems must have possessed many great qualities, as I have said; else how are we to account for the high estimate of them formed by Cicero, Juvenal, Tacitus, Quintilian, and Horace?

But these fragments, in spite of the very unfortunate vehicle by which they have been transmitted to us, still preserve evidence enough to convince us that the works of Lucilius served Horace as models in a very much greater degree than is usually supposed. They have lost, in their transit to us, nearly all their beauty, and (we may infer) most of the evidences connecting them with Horace; because we have them from men who were not thinking about literary beauty, or about Horace, but about the gender of *palumbæ*, the question whether *ricтус* is applicable to men as well as beasts, whether *manducare* may be deponent, and such like apories. But it seems to me that we possess evidence enough to convince us that (for instance) Horace's description of the dinner of Nasidienus is a modernised restoration of some such dinner described by Lucilius; that Horace's journey to Brundisium is similarly related to a versified itinerary of Lucilius (though no doubt the journey was actually made by Horace); that the bore met by Horace on the Sacred Way was a Lucilian bore *réchauffé*; and that many of Horace's Epistles travel on the same lines, from the same starting-point to the same goal, as previous essays of Lucilius:—that in his moral essays Horace used Lucilius as Pope used Horace and Donne; in his descriptive essays, as Pope used Chaucer. When Pope makes George I. figure in his verse as Augustus, we feel that he is doing

what no Englishman would have done, unless he were trying to accommodate Horace to his own time. When he says,

Our wives read Milton, and our daughters plays,

he says something that must by no means be taken as an evidence of the peculiar features of literary culture in Pope's time, but must be looked on rather as a modernising of Horace. Pope was not describing the manners of his own time, but was translating Horace; not that he sought to give a literal version, but rather a restoration in which Augustus should appear as George I., Homer as Milton. Similarly we find that when Horace speaks of the typical gladiator he uses the name of Pacideianus, a gladiator commemorated by Lucilius, whom (were he not engaged on a restoration of Lucilius) he would no more have thought of mentioning than a modern writer would think of naming Mendoza, instead of Tom Sayers, as the typical prize-fighter of a few years ago.

If the division into Satires and Epistles coincided with any well-defined difference of subject or treatment, we might broadly say that the Satires as a rule are restorations of Lucilius, and the Epistles as a rule pictures of contemporary Roman life; but there are some Epistles which are, as we shall see, Lucilian restorations, and some Satires the Lucilian origin of which is at least not betrayed by the remains of Lucilius. We are therefore debarred from any such generalisation, though more copious remains of Lucilius might have made such a generalisation possible.

The fragments of Lucilius have not been neglected in the illustration of Horace. I shall seek to show that their full significance has not been felt, or at least has not been sufficiently emphasised. Here, however, a remark must be premised. In quoting the fragments of

Lucilius I sometimes bring together fragments said to be taken from different books of Lucilius. In the first place, there is constantly a great doubt as to the book to which we are referred by the Nonius or Priscian to whom we owe the preservation of the fragment. Whether the proper number be III., or IV., or XX., or XXX., few MSS. are good enough to decide. Moreover, even suppose it to be granted that we were sure of the number of the book from which the grammarian takes his quotation; suppose it to be granted that we were sure that the grammarian was himself sure;—will any one doubt that if Horace were restoring a Lucilian sketch, he would use the materials furnished by two or more similar poems of Lucilius, and would fuse them into one for his own purpose?

To begin, then, the consideration of the fragments of Lucilius:—

Horace, in a well-known poem (Sat. i., 5), describes a journey from Rome to Brundisium. Lucilius described a journey from Rome to Capua, and thence to the Straits of Messina. The fragments of the poem of Lucilius have come down to us solely from the grammarians; it is therefore the merest chance—the occurrence of some curious form or inflexion—that has preserved for us such fragments of the poem as are extant. Of course between two descriptions of a journey there must be certain resemblances of language; but the few expressions of the Lucilian itinerary which chance has handed down to us seem to me to show that Horace (though probably he did actually take the journey he describes), yet was originally inspired with the idea of writing a metrical account of a journey solely by the Lucilian poem, that he followed its details minutely throughout, and borrowed from it such incidents as seemed likely to make his own poem more entertaining. We have

a passage quoted by Porphyrius as coming from the 3rd book of Lucilius—

lectum
perminxi inposuique podendam pellibu' labem.

These words are quoted by Porphyrius on Hor., Sat. i. 6, 11—

quoniam in propria non pelle quiescam,

to show that the ancients used *pelles* as bed-clothes. Few will fail to agree with Dousa that the sense of these verses is that of Hor., Sat. i. 5, 85; and it will be observed how close was the copy which preserved this coarse incident. From the same book of Lucilius (and presumably from the same poem) we have the verse—

malas tollimu' nos adque utimu' rictu,

quoted by Nonius as a proof that *rictus* is applicable to men as well as the brutes. From this we may perhaps infer that some humorous discussion, such as that between Horace's Sarmentus and Messius Cicirrhus, formed an episode in the poem of Lucilius; and in the words *macroque palumbes*, quoted by Nonius to show that *palumbes* is sometimes masculine, we have probably the prototype of the *macro turdos* that figure in the account of Horace. Add to these the Lucilian verse quoted by Porphyrius:

quem plane hexametro versu non dicere possis,

and the verse quoted by Priscian:

deficit alma Ceres nec plebes pani' potitur.

With which compare the Horatian

quod versu dicere non est,

and

nam (panis) Canusi lapidosus.

Other coincidences I pass over as referring to the general incidents of a journey. Such coincidences would naturally

be found between two metrical itineraries. But when we find coincidence in minute details, or in adventures forming episodes in the journey, which we can hardly suppose to have actually occurred both to Lucilius and Horace—we are, as it seems to me, justified in supposing that Horace found a versified description of a journey by Lucilius, and taking it for his model, wrote a similar account of a journey taken by himself, introducing into his poem whatever seemed entertaining in the work of his predecessor, pruning away redundancies, modernising the language, and smoothing down the more intolerable harshnesses of metre and rhythm.

Again, two verses have been preserved by Nonius and Pomponius, as instances of the deponent form of *manducat*, and the alternative form of *comedit*. The verses are—

adsequitur neque opinantem, in caput insilit, ipsum
commanducatur totum complexu' comestque.

If we had the rest of this poem, I believe we should recognize the prototype of the bore who molested Horace on the Sacred Way. The words with which the Satire describing the interview begins have a Lucilian ring about them (*ibat forte aries* is quoted by Nonius as from Lucilius), and the *sic me servavit Apollo* had already been used by Lucilius in its Homeric dress—

τὸν δ' ἐξήρπαξεν Ἀπόλλων.

Let me here (by way of parenthesis) answer two objections to my inference, which will naturally have occurred to the minds of my hearers. Firstly, it may be urged that the Lucilian origin of the poems of Horace would have been betrayed more clearly than it is on the very face of the fragments of Lucilius. To this I would reply, that

the objector does not duly appreciate the fact that these fragments have come to us solely from the grammarians, and does not reflect how much the real character of the *Saturae* of Lucilius must be disguised by the medium through which they have reached us. I would ask my objector to read the fragments of Aristophanes, which, like the fragments of Lucilius, have been handed down chiefly by the grammarians. And what will be the result of his study of the fragments of Aristophanes? He will find *an utter absence of humour*. From that sparkling well-head of wit not a bubble survives, from that ἀνήριθμον γέλασμα not a smile. Aristophanes, in the fragments, is like the skull of Yorick in the hands of Hamlet—not a flash of merriment—“not one now to mock your own grinning—quite chap-fallen.” So much can the colour of a poet’s work be blurred by the medium through which it comes.⁴

The second objection, which I here anticipate, is this. It will naturally be asked, would not Horace’s own fellow-countrymen, would not Quintilian especially, have pointed out more accurately the relation that subsisted between Horace and Lucilius, if it were really that which is here pointed to. To this I can only answer, that in thus arguing we are deceived by a false analogy drawn from modern conceptions. The question as to originality was looked on as irrelevant by the Romans. They did not look a gift-horse in the mouth; they did not ask whence it came, but merely was it good. Quintilian, in speaking of the Roman Tragedy, does not for a moment refer to its Greek origin, but treats

⁴ Probably therefore the other writers of the Old Comedy were not so immeasurably inferior in humour to Aristophanes as would appear from the fragments which we possess. The only piece of Aristophanic humour (as it seems to me) in the fragments of the Old

Comedy is in Pherecrates, where one of the characters, being given a small cup, refuses it thus :

μηδαμῶς

μικρὸν γε. κινεῖται γὰρ, εὐθύς μοι χολή,
ἐξ οὐπερ ἔπιον ἐκ τοιαύτης φάρμακον.
εἰς τὴν ἐμὴν νῦν ἔγχεον, τὴν μείζονα.

the Latin versions as substantive creations. In selecting Lucilius to restore, Horace was, from the Roman point of view, *original*. Originality, in the mouth of a Roman, meant copying a new model. Paths trodden by no *Latin* before were

trita solo. nullius ante

It is true, I allow, that Horace seems to feel that in taking a Latin poet as his model he is in an abnormal position : he *explains* his imitation of Lucilius, but boasts of his imitations of the Greeks.⁶

Let us now pass to another of Horace's sketches of Roman life, and consider whether does Horace, in describing the dinner of Nasidienus, tell of a dinner at which he was himself present (or which he heard described by a friend); or does he, on the other hand, take up a sketch of Lucilius, in which the vulgarity of a purse-proud *nouveau riche* is satirised, and refurbish its language and metre, to suit the nicer ears of the Augustan court? The following fragments may perhaps seem to show sufficient reason for adopting the latter theory:—

(a.) decumana ova.

In these words Lucilius is, no doubt, ridiculing, as L. Müller suggests, the bad taste of the host, who serves huge

⁵ A most striking trait in the whole of Roman literature is the *naïveté* with which the Roman avows his indebtedness to the Greek. Plautus, in putting

huius modi paucas poëtae *reperiunt* Comoedias
ubi boni meliores fiant,—

It does not seem to occur to him that even a remodelling of his Greek *exemplar* is permissible to the Latin playwright. It has often been noticed how Plautus, in his application of the word *barbari* to the Romans, and *barbaria* to Italy, betrays the adventitious origin of Latin Comedy.

remind us of the Horatian

post hoc me docuit melimela rubere minorem
ad lunam delecta,

as well as the

deterior post partum carne futura,

and

leporum avolsos ut multo suavius amos,

and the other hints on gastronomy with which Nasidienus entertains his guests.

(k.) naumachiam licet haec, inquam, alveolumquē putare, et calces; delectes te; hilo non sectiu' vives.

Here we probably have the words of a guest consoling the host for some such mishap as befell Nasidienus when the hangings came down: "We must look on life as a game of chance; we must expect that luck will sometimes go against us; take this easily; it will be all the same in a hundred years." It may be added that one of the guests is Nomentanus, a character who appears in Lucilius. Many of the Horatian *personae* have a Lucilian origin, especially those typical of classes, *e.g.*, Pantolabus, Malthinus, Maenius, as well as Pacideianus, the typical gladiator to whom I have above referred.

In some cases chance has preserved for us somewhat consecutive utterances of Lucilius. Side by side with the restored bridge we have traces of the old structure, which still serve as stepping-stones across the stream of the years. We can see, for instance, in the 1st Satire of Horace how the whole train of thought belongs to Lucilius. Nonius, to illustrate the usage of *olim*, quotes

(a.) sic tu illos fructus quaeras adversa hieme olim
queis uti possis et delectare domi te.

Sic no doubt betrays (as Francken observed) the existence in Lucilius of the moral drawn from the foresight of the ant in Hor., Sat. i., l. 28, *seqq.* Horace's praise of frugality, in the same Satire (vv. 45, *seqq.*):

millia frumenti tua triverit arva centum,
non tuus hoc capiet venter plus ac meus,

lurks under the Lucilian

(b.) aeque fruniscor ego ac tu,
and

(c.) millia ducentum frumenti tolli' medimnum,
vini mille cadum ;—

and the key-note of the rest of the Satire against the universal and immoderate pursuit of riches is touched in the verse,

(d.) rugosi passique senes eadem omnia quaerunt,

and is more strongly and clearly struck in

(e.) aurum adque ambitio specimen virtuti' viriquest;
quantum habeas, tantum ipse sies, tantique habearis,

which is closely parallel to the Horatian

nil satis est, inquit, quia tanti quantum habeas sis.

(d) is handed down by Nonius as an example of *passus* in the sense of dry or "wrinkled," and (e) is preserved by a scholiast on Juv., iii. 142.

Nonius quotes, as an example of *differre* in the sense of *distare*, the Lucilian verse,

tamen aut verruca aut cicatrix naevis papulae differunt.

Probably the train of thought of the whole poem of which this is a fragment was the same as that of Hor., Sat. i. 3, where we find (v. 73)

qui ne tuberibus propriis offendat amicum
postulat, ignoscet verrucis illius,

for we find that a subsequent well-known passage in that Satire finds a very close parallel in Lucilius :

nondum etiam qui haec omnia habebit
formonsus, dives, liber, rex solu', feretur.

The 14th Epistle of the first book seems to have been almost a *replica* of a letter of Lucilius. Horace writes to his *villicus*, who wished to live in town, that he must remain in the country. He moralises on the diversity of his own taste, which prompts him to seek a rustic life, and accounts for his love of the country by his sense of the absence of envy and malice from rural retirement. It is not *a priori* probable that Horace would address such a letter to a *mediastinus*. The letter was never meant to meet his eyes, but was to be read by the court, and admired as a clever restoration of Lucilius. There is not a remarkable expression in this poem of which chance has not betrayed the Lucilian origin. Nonius, as an example of *stat* in the sense of *plenum est*, quotes

(a.) interea stat sentibu' pectus,

with which compare Horace's

certemus spinas animone ego fortius an tu
evellas agro.

Side by side with the passage (Ep. i., 14, 6-9) ending,

tamen istuc mens animusque
fert et amat spatiis obstantia rumpere claustra

observe the Lucilian

(b.) si tam corporu' loco validum et regione mearet
scriptoris quam vera meat sententia cordi.

We happen to possess even the words in which Lucilius accounts for his preference for the country. They are given by Nonius under the word *strabo*—

- (c.) nulli me invidere non *strabonem* fieri saepius
deliciis me istorum ;⁷

the words of Horace are

non istic *obliquo* oculo mea commoda quisquam
limat, non odio obscuro morsuque venenat.

Again, while Horace says

nam, quae deserta et inhospita tesca
credis, amoena vocat mecum qui sentit,

Lucilius has

- (d.) per inhospita tesca vagantem
rerum animo sequitur captarum gratia maior,⁸

the fancies out of which future poems are to be woven come to the poet invested with greater grace when he is wandering through the rustic wilds. Surely no one will fail to see that here we have a poem travelling from the same starting-point, on the same lines, to the same goal as a previous poem of Lucilius, yet we have not a word told us by Horace about its Lucilian origin—and this because such a statement was not *ad rem*. The only question for Horace was whether his poem was more fit than the Lucilian (and more likely) to be read by Maecenas and his friends. And there can be very little doubt that that question would have been answered in the affirmative.

⁷ Of course (c), differing as it does in metre from (a), (b), and (d), cannot have belonged to the same poem of Lucilius. Either, then, Horace availed himself of more than one poem of Lucilius, or this parallelism must be accidental, and (c) must not be looked on as part of the material here used by Horace.

⁸ This fragment rests on the testimony of Barth, and therefore is discredited by Lucian Müller; but even the old scholastic sophism of the *mentis* suggests to us that the liar may sometimes speak the truth; indeed we may go further, and say that the liar must in the majority of instances tell the truth.

Let me add two more passages :—

- (a.) ut mercede quae conductae flent alieno in funere
praeficae multo et capillos scindunt, et clamant magis.

Cp. Hor. Ar. Poet., 431-33.

ut qui conducti plorant in funere, dicunt
et faciunt prope plura dolentibus ex animo.

Surely this very far from obvious figure did not occur independently to the two poets, yet Horace does not add that the figure was borrowed from Lucilius, no doubt because it was well understood that it was his aim and purpose to restore Lucilius, and serve up his best bits in a way suited to the Augustan taste.

Porph., on Ep. i., l. 73,

- (b.) olim quod volpes aegroto cauta leoni,

tells us that the fable is taken from Lucilius, and I think we should not err in tracing to the same source most of those apologues which Horace so loves to introduce.

It will be observed that I have not quoted single words or expressions which coincide, for such a coincidence proves nothing; Horace was, of course, familiar with Lucilius, and so was Lucretius, who often has a Lucilian expression. I only quote coincidences which seem to me significant that Horace took the *argument* of the poem in question from Lucilius, and that he was, as I said before, apparently travelling from the same starting-post, on the same lines, to the same goal.

Horace, in his Odes, no longer follows a Roman model. Here his masters are the Greeks, whose language and imagery he reproduces with more or less adroitness, but with faithful adhesion to his models. Witness his refe-

rence to the Olympic games in the first Ode—so completely out of place in the catalogue of the objects of a Roman's ambition, but quite appropriate when Pindar fr. 201 says,

ἡλλοπόθεν μὲν τὴν εὐφροσύνην ἔκταν
τῆμα καὶ στέφανον, τοὺς δ' ἐν πολυχρόνῳι θαλάμῳι βιοτά.

Again, who could help feeling that he was reading a translation in the words

crescit occulto velut arbor ævo.

even if he did not call to mind Pind., Nem. 4. 40,

αἰζέρον δ' ἄρα καὶ χλαμῶν ἑρπύς ὡς ὅτε δαδρέον ἄσσει.

But in the midst of the Greek imagery and Greek expressions which abound in the Odes we find an occasional Romanism. For instance, there is no Greek ingredient in the ungraceful comparison between the unbounded desire of money and the thirst produced by dropsy (Od. ii., 2, 13, *sequ.* :

*crescit indulgens sibi dirus hydrops
nec sium pellit nisi causa morbi
rugerit venis et aquosus albo
corpore languor.*

This tasteless figure affords an example of that "fearful realism" in the Roman character to which Goethe attributes the instances of bad taste which meet us in Roman poetry. There is, as I have said, nothing of the manner of Greek poetry in this simile, though it recommended itself for imitation afterwards to Ovid : where, then, did Horace find his inspiration, if not in himself? I believe he found his model in Lucilius. In explanation of *aqua intercus*, Nonius quotes from Lucilius

aquam te in animo habere intercutem,

an expression which seems to me to have suggested to

Horace the passage in the Odes just quoted as certainly as the Homeric *ἱππόδαμος* suggested the Virgilian *equum doctor*.

If we possessed a more considerable or more connected portion of the works of Lucilius, or if what we have been handed down to us (like the fragments of Euripides) for aesthetic not grammatical reasons, we should probably find that in the Epodes Horace had more largely availed himself of the Lucilian treasure-house than in the Odes. In explanation of the word *sudum* we have the verse in Lucilius,

nec ventorum flamina flando suda secudent,

which at once recalls Horace's *propempticon* (Epod. x.), beginning

mala soluta navis exit alite
ferens olentem Maevium.

In his Odes, however, where Horace seeks to maintain an elevated tone, the influence of Lucilius will be but little felt. But here, too, it seems to me that in the explanation of the Odes their dependence on their Greek originals is not sufficiently taken into account. Very often the right course for the interpreter is to consider what Greek word Horace is translating. For instance, is it not possible that he thought of the Greek *επισφαλής* when he wrote

et voltus nimium lubricus aspici,

and that in the phrase

domus exilis Plutonia

he had in mind the *νεκύων ἀμένηνα κάρηνα*, so that *domus exilis* would mean the same as *levis turba* (Od. i., 10, 18), and not *egena*, as Bentley takes it? *Domus* is "family" in Od. i., 6, 8:

nec saevam Pelopis domum.

Again, may it not have been inattention to the Greek origin of the Odes which allowed Quintilian to see in the 14th Ode of the 1st book,

O navis, referent in mare te novi,

an allegory describing the troubles of the ship of the State? From this grew—and not without logical sequence, as it seems to me—the elaborate exegesis of those who, from the expression *Pontica pinus* have spun a theory of the meaning of the Ode. Pompey, say they, was conqueror of Mithridates of Pontus: the *Pontica pinus*, therefore, represents the fortunes of his son, Sextus Pompeius, whom Horace dissuades from entering into war with Octavianus.

But if *Pontica* thus transcends in significance Lord Burleigh's nod, what is the meaning of *Cycladas* in the last verse? Surely, by parity of reasoning, it must also be big with meaning.

Is it not more probable that Horace had before him some little Greek poem now lost (not the fragment of Alcaeus, which was probably allegorical), in which were described the struggles of a vessel seeking to make the harbour under stress of weather? Horace puts forth his poem as a clever restoration of a Greek poetical vignette. Then all difficulty vanishes. The ship is *Pontica pinus*, because Pontus was for the Romans the chief source of ship timber, as may be seen from Catullus (iv.) And the Cyclades are mentioned, as among those islands navigation was especially difficult, a fact to which the poem of Catullus just referred to bears testimony.

The allegorical view of this Ode has vitiated the interpretation of the next,

pastor quom traheret per freta navibus,

on which, if any one wishes to see the allegorical mode of interpretation driven to death, let him consult the note of

figure the relations of Antony and Cleopatra. Paris is hidden by Ve-
 nus. That is, Antony takes refuge in
 the Greek original, perhaps
 Venus was doing little more than

criticisms upon the Odes because I
 reference to them in pointing out the
 certain phrase, and it then seemed to
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 of the Odes, though freely admitted, is
 not before the mind in interpreting them.
 The allusions in the Odes may arise from the
 the Romans in reference to the stage called
 the piecing together of different models.
 I conclude with a few words on Horace as a

as a literary critic, is the unsafest of guides.
 of the function of the chorus in the Greek Trage-
 narrow as his conception of the use of the *Deus*
ex machina. With regard to the latter point, it should be
 noted that in many of the plays of Euripides (notably,
Bacchae) the action has been completed before the
 chorus appears, and there is no knot whatever to be untied
 by their intervention. His comment on the passage in the
Bacchae, where Dionysus replies to threats of Pentheus in
 the words,

λύσει μ' ὁ δαίμων αὐτὸς, ὅταν ἐγὼ θέλω,

is an absolute misconception of the whole purport of
 the passage. One might almost fancy Horace had never read
Bacchae when he says,

opinor,

hoc sentit : moriar : mors ultima linea rerum est.

Again, may it not have been inattention to the Greek origin of the Odes which allowed Quintilian to see in the 14th Ode of the 1st book,

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an allegory describing the troubles of the ship of the State? From this grew—and not without logical sequence, as it seems to me—the elaborate exegesis of those who, from the expression *Pontica pinus* have spun a theory of the meaning of the Ode. Pompey, say they, was conqueror of Mithridates of Pontus: the *Pontica pinus*, therefore, represents the fortunes of his son, Sextus Pompeius, whom Horace dissuades from entering into war with Octavianus.

But if *Pontica* thus transcends in significance Lord Burleigh's nod, what is the meaning of *Cycladas* in the last verse? Surely, by parity of reasoning, it must also be big with meaning.

Is it not more probable that Horace had before him some little Greek poem now lost (not the fragment of Alcaeus, which was probably allegorical), in which were described the struggles of a vessel seeking to make the harbour under stress of weather? Horace puts forth his poem as a clever restoration of a Greek poetical *vignette*. Then all difficulty vanishes. The ship is *Pontica pinus*, because Pontus was for the Romans the chief source of ship timber, as may be seen from Catullus (iv.) And the Cyclades are mentioned, as among those islands navigation was especially difficult, a fact to which the poem of Catullus just referred to bears testimony.

The allegorical view of this Ode has vitiated the interpretation of the next,

pastor quom traheret per freta navibus,

on which, if any one wishes to see the allegorical mode of interpretation driven to death, let him consult the note of

Ritter, who makes the Ode figure the relations of Antony and Cleopatra. "Paris is Antony. Paris is hidden by Venus in Helen's chamber, that is, Antony takes refuge in Cleopatra's ship." If we had the Greek original, perhaps we should find that Horace was doing little more than translating.

I have made these criticisms upon the Odes because I was drawn into a reference to them in pointing out the Lucilian origin of a certain phrase, and it then seemed to me not irrelevant to suggest that, as the Lucilian source of the Satires and Epistles has been generally overlooked, so the Greek source of the Odes, though freely admitted, is not sufficiently kept before the mind in interpreting them. The abrupt transitions in the Odes may arise from the practice which the Romans in reference to the stage called *contaminatio*, the piecing together of different models.

I shall now conclude with a few words on Horace as a literary critic.

Horace, as a literary critic, is the unsafest of guides. His view of the function of the chorus in the Greek Tragedy is as narrow as his conception of the use of the *Deus ex machina*. With regard to the latter point, it should be observed that in many of the plays of Euripides (notably, in the *Bacchae*) the action has been completed before the God appears, and there is no knot whatever to be untied by his intervention. His comment on the passage in the *Bacchae*, where Dionysus replies to threats of Pentheus in the words,

λύσει μ' ὁ δαίμων αὐτὸς, ὅταν ἐγὼ θέλω,

betrays an absolute misconception of the whole purport of the play. One might almost fancy Horace had never read the *Bacchae* when he says,

opinor,

hoc sentit : moriar : mors ultima linea rerum est.

This literary blindness was in a great measure the result of Horace's Stoical views. The Stoics extorted moral lessons from literature with a blind obstinacy which is hardly surpassed at present by the type-hunting expounders of the Old Testament.

Macaulay, as we are told in the *Life* by Trevelyan just published, observed that Horace never characterises Aeschylus but once, and then he speaks of him only as the introducer of certain mechanical improvements in stage properties, as

personae pallaeque repertor honestae.

This insensibility to the greatness of the author of the *Orestea* is only paralleled by his strange want of enthusiasm in the contemplation of the great past of Rome, a theme which so strongly kindled the fervour of Virgil in Horace's own age, and Lucan in a subsequent age.

Grote points out another instance of this incompetence to see the significance of a great poem, when he condemns Horace's attribution of a didactic purpose to the *Odyssey* in *Ep. i. 2, 18, seqq.* "Horace" (says Grote, vol. i., p. 580) "contrasts the folly and greediness of the companions of Ulysses in accepting the refreshments tendered to them by Circe with the self-command of Ulysses himself in refusing them. But in the incident, as described in the original poem, neither the praise nor the blame here implied finds any countenance. The companions of Ulysses follow the universal practice in accepting the hospitality offered to strangers, the fatal consequences of which, in their special case, they could have no grounds for suspecting; while Ulysses is preserved from a similar fate, not by any self-command of his own, but by a previous divine warning, and a special antidote which had not been vouchsafed to the rest (*Odyss.*, x. 285). And the incident of the Sirens, if it is to be taken as evidence of anything, indicates rather

the absence than the presence of self-command on the part of Ulysses."

All that I have said seems to show that we must ever most gratefully admire the skill of the restorer, which has made vocal for us the

bleeding mouths, and smitten tuneful lips
of those Greek lyric poets

whose broken harmony
Makes discord shriek where music seemed to flow ;⁹

and which has handed down, embellished and beautified, the "rugged maxims hewn from life" in which Lucilius enshrined the wisdom of the Roman republic. So much must we admire the Odes of Horace, that we feel proportionately the more galled at his occasional inability to maintain the elevated tone. When poems do not profess to be original, they are good in execution or they are naught. A lapse from dignity in Pindar does not offend, for, rightly or wrongly, one must feel of the Greeks that they

Do but sing because they must,
And pipe but as the linnets sing.

* These lines are borrowed from a poem on the Fragments of early Greek Lyric Poetry, which appeared in "Kotabos," vol. i., p. 77. The poem seems to me so good that I shall add it here :—

We have all Tupper—not one thunder tone
Hath ceased to bellow through the British sky,
And ladies tell us that the great trombone
Will sound again, and laughing fools defy ;
But where are ye whose broken harmony
Makes discord shriek where music seem'd to flow,
Clear stars of song, to whom our best can be
Nought but loose clouds that shift and toil below ;

Handbreadths of wondrous streams, joyous and free,
That leap, and foam, and flash, and have no peers,
Bounded by darkness ; wafts of strange melody
Heard in the loud wild night of wasteful years ?
Ah, bleeding mouths ! ah, smitten tuneful lips !
He is the same who mightily lifts the sun
Majestical, and blacks it with eclipse,
And wastes the pleasant slopes of Helicon—
The law that bound the Israelites of old
Slays you, the firstlings of Apollo's fold !

When poured from so full a cask, we do not require that the wine should run clear to the very dregs. But we have (it must be confessed) more than this to deplore in Horace. We have to regret that he should have left his social studies to lecture about Greek plays and prosody—subjects which he was not competent to deal with—led on by the irresistible example of his master, Lucilius, who devoted book after book to criticisms (no doubt crude) on Greek poets, and discussions about the principles of orthography. We have to regret that he too often lays aside the philosophic *abolla*, and leads us through the secret ways of an impure life; and, lastly, we have to deplore that sleek acquiescence of spirit which exhausts all its eulogies on the peace established by Octavianus, and has no eyes for the great past of Rome. It was this *amor vetustatis*¹⁰ which raised Virgil to his highest flights of poetry, nor was it in him at all incompatible with an adequate appreciation of the work of Augustus. Yet surely nowhere would the glories of the Roman Republic have found a fitter shrine than in the Odes of Rome's only lyric poet, and never could a better occasion than this have befallen for combining the characteristic excellences of the Greek and Roman Muse—Pindar's full-voiced lyrical affluence, and Virgil's stately fervour and Roman pride of place.

ROBERT YELVERTON TYRRELL.

¹⁰ Virgilius, amantissimus vetustatis. Quintil., i. 7, 18.

“GREEK AND LATIN ETYMOLOGY IN
ENGLAND.”

IN No. II. of *Hermathena* Dr. Ingram has given an article on this subject, which I, as one principally concerned in his strictures, have read with great interest, and with the respect and attention due to so eminent a scholar. There is little or nothing in his remarks of which I have any right to complain. All he has said, if sometimes a little hard, from his point of view is fair and reasonable; although, of course, it is a matter of some regret to find myself, after so many years of thought and research, held up as a warning to students as “exercising a pernicious influence” in etymology, and my edition of Homer as “in the highest degree detrimental to rational notions on this subject.” I was well aware, and have long been, of the objections that have been raised against some of my explanations of the meaning and origin of obscure archaic words. Perhaps none will be surprised that, in a subject so speculative and tentative as etymology must ever be (for if some principles seem certain, there are countless points on which the learned are by no means agreed), I am still loth, on mature reflection, to resign as untenable some views and opinions which seem “amusing,” “ludicrous,” or even “monstrous” to others.

When I wrote my notes on Homer, Buttmann’s *Lexilogus* and Donaldson’s *New Cratylus* (3rd Edit.) were (to me at least) almost the only accessible books on Greek etymology, with the exception of Professor Max Müller’s *Lectures on the Science of Language*, and some minor

works, which I need not specify. With Donaldson's work I was especially familiar, as I was, indeed, personally with the author himself; and I may say, that by far the greater part of what I have stated will be found to be justified by his views, if not taken directly from him. And as he repeatedly refers to, and had thoroughly studied, the then published works of the great etymologers, Bopp, Grimm, Curtius, and Schleicher, and besides makes constant, or rather incessant, use of Sanscrit affinities, I not unnaturally regarded his bulky volume as a fairly safe guide. I merely mention this to plead that I had *some* method, and was not at all disposed to make mere ingenious "shots," or random guesses, without knowing any principles of etymology. That is a charge that might much more fairly be brought against D. L. Doederlein's edition of the *Iliad* (1863). It was for this very purpose, to teach (as the author conceived) true and philosophical principles in that science, that Donaldson's work was composed. Perhaps, indeed, I am fairly liable to the charge of having been rather a thinker than a reader, and hence of having put forward suggestions which, partly because they are new, have been judged to be baseless.

My preface to Hesiod, published as long ago as 1861, will show that I had paid much attention to the very difficult subject of the digamma, which may almost be said to be at the root of all Greek etymology. And Dr. Phil. H. Flack, in "*Die Hesiodische Theogonie*" (Berlin, 1873), has even quoted and followed me as a principal authority. Now, it is precisely on this obsolete **F** that most of the objections to my etymologies may be said to turn. I may, however, express my belief, that on this subject Dr. Donaldson and I entirely agree; and it is a subject, I think, which both of us have pursued in a great measure independently. Mr. Peile (following, I believe, Curtius) lays it down that the **F** is "the representative of

original *v*, and of that only" (Etymology, p. 233, ed. 1); and he attributes to it the feeble sound of the English *w*. For my part, I think it was a strong, often sibilant and even guttural spirant, *hw* or *sw* (as seen in *δc*, compared with *suus*, and our *she*, with the Saxon *heo*). One of its sounds must have been nearly the Latin *F*, and not far from that of the English *F*, since it occupies the same place in each alphabet. And common sense tells us that, when the digamma was dropped, this purely spirant *F* sound must have been represented by *φ*, as indeed is plain from *fio*, compared with *φύω*; *féu* (οὔ), with *σφέο*; *μορφῆ*, with *forma*; *ἀμφιλαφής*, with *ἀπολαύω*; *φέρω*, with *fero*; *famá*, with *φήμη*. In this Dr. Donaldson agrees. He says, "the older power of *F* was a sibilant and a labial" (§ 111), and he gives not *v* but *δh* (which is virtually my *hw*), as its ordinary equivalent (§ 110). Now, both *φ* and *v* are allowed by all scholars, I believe, to have been introduced *after* the *F* was dropped, which had served for both sounds.¹ What, then, becomes of Dr. Ingram's counter assertion (p. 433): "The root of *σεύω* is not *σεF*, but *σv*; of *χέω*, *θέω* (*θύω*?), *ξέω*, not *χεF*, *θεF*, *ξεF*, but *χv*, *θv*, *ξv*, &c."²? As for the statement that the root of *τίθημι* (*θέω*) is *θεF*, it is taken from Dr. Donaldson, who gives good reasons for it (§ 473). If *φ* is later than *F*, then *κεF* is an older root of *cubo* than *κvφ* (p. 434); and in discussing the oldest forms of the language, I can hardly be said

¹ Donaldson, *New Crat.*, § 102: "As soon as the Greeks ceased to employ *F*, which was very early, *v*, *φ*, must have come into use." Franz (*Elementa Epigraphices Graecae*, p. 20): "Phoenicium βαῦ inveniendae literae τ mature dedisse causam videtur, quae, ni fallor, ab Aeolibus profecta, vocalem designat consonae *F* cognatam." Of the vowel *v* he says (*ibid.*) that "manifesto est additicia."

² If *φ* was sometimes represented by

ΠΗ (*ph*), for which there is some slight authority in very early inscriptions (Franz, *ibid.* p. 47), it may plausibly be maintained, that "*f* was quite different from the Greek *φ*" (Peile, *Etym.*, p. 241; Donaldson, § 111). But Mr. Winning (quoted by Donaldson, *ibid.*) seems more correctly to hold that "one sound of the Latin *f* corresponded to the Greek *φ*, and was used in words connected with the Greek, such as *fero*, *fama*, &c.

"to take everywhere an unwarrantable liberty in interchanging ϕ and F" (p. 434). I still venture to think that the only way the early Greeks had of expressing *in letters* the root of $\phi\acute{\upsilon}\omega$ was F ϵ F;³ and this seems confirmed by the Latin forms *femina* and *fetus*, while the sibilant sound of F seems represented by the Sanscrit *su*, "to beget," by the side of *bhū*, "to be" (Peile, *Etym.*, pp. 34, 69, ed. 1). In suggesting that the root of *παρίομαι* was παF, and not παρ, I had in view the remarkable Doric word παίειν, "to eat," in Ar. Ach. 835, as well as πῶν, "a flock," and the Latin *pasco* (which may represent *pav-sco*); and the close analogy between *striking* (παίειν, *pavire*), and the collision of the teeth in eating. I still see no impossibility, or even improbability, in anything I have said about $\phi\eta\rho\epsilon\varsigma$ and F $\eta\rho\epsilon\varsigma$; and if Dr. Ingram will turn to §§ 257, 285 of *New Cratylus*, he will find that I have simply followed Donaldson in referring $\phi\acute{\omega}\varsigma$, $\eta\rho\acute{\omega}\varsigma$, *vir*, *war*, ἄρης, ἀρετή, ἐρίηρος, ἐπίηρα φέρειν, to a common root Faρ, which in early times had lost a digamma. I think, therefore, that Dr. Ingram is rather hard on me in asking (p. 426), "are we to discuss seriously all these random guesses, or treat them as amusing specimens of perverse ingenuity?" Discuss them seriously, I should certainly say; since they are the deliberate conclusions of one of the greatest linguists, the best classical scholars, and the deepest and most original thinkers on etymology that this country has ever produced. That *vir*, and the Saxon *wer*, and the Celtic *phere* or *fer*, "a man," are identical, seems to me as clear as that *virtus* and ἀρετή must belong to the same root. I have no doubt that *in later times* ϕ was not the same sound as either the digamma or the Latin *f*; for the F "must origi-

³ Donaldson (§ 458) gives φαFος = FaFος, as I have supposed the oldest form of the verbal φυτὸς (*fetus*) was FeF-τος, on the analogy of *fātum* (φαFτον) compared with the later φᾶτόν; and

that of $\phi\acute{\upsilon}\omega$ was $\phi\epsilon F\epsilon\mu$ or FeFeμ, which Dr. Ingram says (p. 434), I do not know on what grounds, would be $\phi\epsilon F\omega\mu$, the ω not being a primary letter.

nally have been the aspirate of the labials, namely, *bh* or *hb*; but it assumed a different value, fell out of use, degenerated into a breathing, or was vocalized into *v*, and *therefore* *φ* was introduced as the proper aspirate of the labial tenuis" (New Crat., § 110). How very easily *f* and *v* are confused is shown by our pronunciation of a *fine vine*, where the two words are virtually identical in sound. When Dr. Ingram says (p. 434) that "Φιάλλω is entirely without authority," and that "Εφιάλτης is plainly from ἄλλομαι," he appears to charge me with the former statement, which is made by Donaldson in § 110. I think it more probable that the proper name is from Φιάλλειν than from ἄλλεσθαι, and so means ἐπιχειρητής, one who begins an attack, or puts his hand to a work. The form ἐφιάλλω (Ar. Vesp. 1348, Pac. 432, or even φιάλλω) tends to show that the word was ἰάλλω (see Liddell and Scott in *v.*), or Φιάλλω. It is a matter of opinion; and I repeat, nothing is gained by mere counter assertion. To Dr. Ingram it appears impossible that Ἐννῶ, as well as Ἐννάλιος, can come from ἄλλεσθαι: to me the one is obviously a shortened form of the other, even though (as in our *uncle* and *cousin*) the really significant part of the word disappears in the clipped or shortened form. Again, the proposition "one thing is certain, that *harrow* has nothing to do with χάρασσω" (p. 433), is just as fairly denied as affirmed. This word, like the identity of ῥύθος with *froth*, I look at as *onomatopoeic*, and, as a natural sound, not tied down to any law by which ῥύθος *ought* to be "wrod."*

* It appears to me that etymologists are often slaves to "Grimm's Law." The two mountain-streams running into Windermere, the Brathay and the Rothay (Danish *Bretha* and *Rotha*) may well represent the sound of foaming water, ῥοθ and *Froth*, like ῥάκος and *Frákos*, βράκος, ῥῆγος and *frigus*, ῥόδον and

βρόδον. I once suggested to an eminent philologist that our *kiss* might be connected with κύσαι and *κιστάν*. To which he replied, that it was "impossible;" for by Grimm's law the English word would be "hiss!" This seems to me like the denying the identity of καλεῖν and *calare* with our *call*.

The affinities of the numerous guttural words implying, by *onomatopoeia*, contact with surfaces, and consequent *roughness*, appear to me highly curious. It seemed to me that γράφω and *grave* (not, as Dr. Ingram misunderstood me to mean, in the sense of *gravis oratio*, but to *engrave* and a γράττε, Germ. *grab*) must be in some way connected. *Raukus* and *ravus*, *raven* (Saxon *kraefen*, or *krefen*) and *gruſſ*, which Dr. Ingram refers to a root *ru*, as in *rumet* and *rugio*, seem quite naturally to proceed from the idea of a *scratched up* surface—as when a person in coughing says that “his throat tickles.” But the supposed affinities were only suggested; I had no idea of laying down the law on a subject which seemed so largely conjectural.

To my mind the change of the sibilant digamma σφ to στ is perfectly simple and natural. It is the same kind of hardening that we see in φανός and πανός, *tus* and *thus* (θύος), πῦρ and *fire*, &c. I therefore fully agree with Donaldson (§ 455) that λίθας, “a stone,” is the same as *lapis*, and that both it and λαμβάνω involve a root λαF (= *labh*) (§ 454). This will suffice (as a defence of myself) against Dr. Ingram’s questions (p. 428)—“Can λίθας be represented in Latin by *lapis*? Does λαF enter into λαμβάνω?” I gave both on Donaldson’s authority. That ζειά is from a root ζεF is not my statement, but Donaldson’s (§ 112), though I may have been wrong in connecting ζῆν with the same root, as indeed Donaldson (§ 216) refers the latter word to the Sanscrit root *jīṭ*, not *jaṭ*. But the notions of “corn” and “life” have the closest possible correlation. In objecting to *better* being possibly an old military term connected with βελτίων and βέλως, Dr. Ingram observes that neither in the Gothic nor in the Old High German is there any trace of the *l*. But, if I mistake not, an old English spelling of the word was *belter*. There are several Greek words generally known to us only in comparative and su-

perlative) in which the primary idea of warlike prowess passed into a general sense of ethical virtue or merit, ἀριστος, κύδιστος, βέλτιστος, φέριστος, ἀμείνων (*New Crat.*, § 262), βελτίων, and which tend, among many other proofs, to show that early man was "a fighting animal."

Dr. Ingram (p. 434) blames me for saying that *ἰοικῶς* was for *ἰφικῶς*, as *ἔισας* for *ἔφισας*, *ἔειπε* for *ἔφειπε*, *εἰκόσι* for *ἰφίκαντι*, &c. The question is somewhat complicated by the numerous forms of the verb and participle occurring in Homer, *φεικῶς* and *φεικυῖα*, *εἰκυῖα* or *φικυῖα* (Fῖκ, in *Il.* xxiii., 66), *ἰοικε* or *ἰφοικε* (iii., 286, 459), and *φειφοικε*, *φειφοικῶς*, *φειφοικότες*, &c., *passim*. Even *ειοικῶς*, representing *φειφοικῶς* (or, according to Buttmann, *Lex.*, p. 275, *φειφοικῶς*), occurs in xviii., 418. By the side of *οἶδα*, *εἰδῶς*, *ιδυῖνσι* (Fῖδ, in xiv., 235, and xviii., 482) we have *ἰοικα*, *εἰκῶς*, *φικ* (as in *ἰκελος*, in which, as in *ἴσος*, a digamma has been lost). There were, therefore, in both words, a long and a short form of the root, *φειδ* and *φιδ*, *φεικ* and *φικ*, as we also see in *ἔθος* and *ἦθος*. Buttmann (*Lexil.*, p. 136) gives the ordinary Homeric form as *φείκω*, *φειφοικα*. It is extremely difficult to determine the exact influence of the F in these words, as all who have thought much on the subject will acknowledge. It seems that *εικ* and *ειδ* are lengthened from *ικ* and *ιδ*, through the influence of the F, which, like the *iota*, has a peculiar property of *hyperthesis*. Thus, I think, we get *εἴωθα* from a root *φειθ*. If *οἶδα* was *φοῖδα*, and *ἰοικε* was *ἰφοικε*, then *οἶνος* and *οἶκος* were *φοῖνος* and *φοῖκος*, whereas the *ο* in these and other similar words seems merely the representative of the F (*vinum* and *vicus*). In saying that *φειφοργα* was *originally* *φειφεργα* (*φειφαργα*, I ought rather to have said), I only meant, of course, that the *ο* was a phonetic change from the form of the root—a change we have in our "work," "word," in *δορκὰς*, from root *δερκ* or *δρακ*, and very many other words. That *φικ* or *φεικ* became *φοικ* by the same law which changed *φιδ* or *φειδ* into *φοιδ*,

δεδω into δέδοικα, *i. e.*, that the *o* is something more than a variety of the ever-changing digamma sound, may be true.⁵ If I was wrong in my statement, I can assure Dr. Ingram that I did not make it hastily, the participle εἰκῶς appearing to me more analogous to εἰδῶς, and my desire having been always to go back to primitive roots.

Dr. Ingram does not see how the alleged root-notion of ἔρμα, viz., that of *placing in a row*, is appropriate to the notion of *support* (p. 430). Will he prefer Buttmann's absurd derivation from ἰρείδειν? The expression for placing stones in a row (primarily as a breakwater and prop to a ship, Il. i. 486) would easily pass into the general notion of support. He asks me "to give the least reason, except the *alleged* similarity of meaning, for assuming the connexion of ἔρμα with σπέρμα" (p. 430). I have many reasons; one, though not the primary, is that in Æsch. Suppl. 580, the conception of Io from Zeus is described by the words λαβοῦσα ἔρμα διόν. Though I am willing to grant that the synonym here of ἔρμα and σπέρμα may be accidental (and the latter sense of the word could only be figurative), I

⁵ The truth seems to be, that the *o* in such forms as ἔοργα, οἶδα, ἔολπα, ἔοικα, is due in part to the influence of the *F* (as in οἶνος, οἶκος, compared with *vinum*, *vicius*), in part to a euphonic law by which the heavier sound was preferred in the epic perfect, as δέδορκα to δέδεργκα. When the *F* had been lost, the substituted and equivalent *o* remained as a real vowel, and therefore admitted the augment, as in ἐφκει, ἐφνοχόει. But in the oblique moods, and the participle, the *o* easily vanished, as in εἰδείην, εἰδῶς, εἰκῶς, and even in εἴξασιν = εἰκόασιν = εἰκέσαντι, or Φικέσαντι; while, on the other hand, we have ἐόλει, as in imperfect of *FελF* =

volu = *ελ-ειν* in Pind. Pyth. iv., and ἀολλῆς and ἀολλίζειν, but ἔελλα. But, unless οἶνος was equivalent to the full form *Foῖνος*, and οἶδα to *Foῖδα*, I doubt if such a word as *Fεφοικῶς* can be regarded as correct. It is quite certain that *F* was a complex sound, and one very partially represented by *v* or *w*. Dr. Donaldson (if I may be allowed to quote him as an authority, New Cratylus, § 110) regards the *o* in οἶνος and οἶδα as "a residuum of the digamma." He would, therefore, have agreed with me in giving *FέFικα* as the really ancient form of the more modern ἔοικα, and not *FέFοικα*.

mention it the rather, because it was the passage that first set me on a long train of reasoning which led me to conclude that εἶπειν and σπείπειν; *sero, serui*; and *sero, sevi*; *sow* and *scw*, could be ultimately referred to the same root. It is thus that σπείρα can be connected with εἶρω (Liddell and Scott), σπάρτον (*funis*) and σπάργανον with σπαρτὸς and *spargo* (*ibid.*) It is a matter of opinion, or speculation, of course; and if any prefer to take quite different roots, *sa* and *siv* (Peile, *Etym.*, p. 77) for *sow* and *sew* (*suo*), and to leave σπείπειν unexplained, I have no quarrel with them: I have no desire to dogmatize.

Those who teach that ἔως is the same word as *aurora*, from a root *us*, "to burn," as it appears to me, draw quite as largely on our credulity as my often-ridiculed suggestion, which in fact was taken from Donaldson (§§ 257, 458), that FaF, pronounced *hwaff*, and implying the quick brushing motion of light, or of wind, as in *favonius*, was the true origin, and that the word ἔως = ἄF-ος was *onomatopoeic*. I cannot assert, nor can any one, how the primitive root was expressed in letters; but it seems to me probably identical with φαF in φάος, and I do not see that FaF (the root given by Donaldson) is more "monstrous," or a more "terrible combination" (Peile, *pref. to Etymol.*, p. xii.), even if pronounced "*waw*," than our *jaw* or the proper name *Waugh*.

From the analogy of ἔως = εἶος or αFος in Homeric scansion, Dr. Donaldson concludes that ἔως, "morning," involved a root αF, and his view is strongly confirmed, if it is not proved, by the Æolic form αὔως.

I have written, I fear, at too great a length on a subject on which it is exceedingly difficult to write briefly. My object has not been to defend what may be erroneous statements, but to show that I had what I considered both good reasons, and in most cases good authority, for making them. I have observed on several occasions, that I have

been made the butt for attack by some who appear never to have read, or at least thoughtfully read, the *New Cratylus*; and so not to have known that by far the greater part of the etymologies I have given in the notes on *Homer* were derived from, or based on, that work, which, I am well aware, it is now the fashion to disparage. It may be that Etymology, as a science, has made great advances since Donaldson's time; but I certainly have read with surprise akin to dismay Dr. Ingram's estimate of the merits of that distinguished man, (p. 408):—"He had the weak desire, and the still weaker pretension, to explain everything. Hence he launched forth at random (?) all sorts of chimerical or inadequately supported theories, linguistic and ethnological. His rash and arbitrary modes of proceeding, whilst they led many astray, repelled from the science the very minds it would have been most desirable to attract. The evil that he did lives after him, though his books on these subjects are happily, with the advance of just views, becoming more and more discredited. Every student of the higher Greek and Latin Grammar must be warned, so long as he is still a tiro in this field, as he values the maintenance of his etymological sanity, to keep clear of the 'New Cratylus' and the 'Varronianus.'" It would seem that I have indeed been following "a blind guide."

F. A. PALEY.

CICERO'S SPEECH FOR A. CLUENTIUS
HABITUS.

THE following remarks will relate to the text of the speech as edited by the late Professor W. Ramsay. It is hard to abstain from appending to the mention of that name a small personal tribute of honour. Professor W. Ramsay belonged to the first rank of scholars in the generation which is now passing away, and every one must, I think, have admired the learning and eloquence which appear in his works. He possessed the power of communicating his stores of knowledge in a delightfully charming manner; and I retain for the initials "W. R." all that affectionate regard that is felt for the monogram of a person whom one has very much admired and esteemed.

A second and third edition of Professor W. Ramsay's "Cluentius" have been issued by, I believe, his son, Professor George G. Ramsay, of Glasgow University, "but no change has been introduced except the correction of a few (typographical) errors, and some trifling alterations in the orthography." The errors in the printing of the second edition were numerous, and very perplexing to the student. They have been entirely removed in the third, to the best of my observation.

This speech of Cicero for A. Cluentius Habitus derives a strong collateral interest from a circumstance which W. Ramsay records at the commencement of his Preface. Niebuhr the historian recommends young men who wish to study the art of expressing themselves in eloquent language, to take two subjects for very particular anatomy,

observation, analysis, and reflection. The two subjects are "the speech of Demosthenes *for the Crown*, and of Cicero *pro Cluentio*." Niebuhr says of the latter speech especially: "this will give you endless work; there are difficulties with regard to the facts which, even after the longest familiarity with it, can only be solved by conjectures such as will not occur to the best scholar at the moment."

The speech *against Meidias* would have been a much more exact counterpart, in Greek, of the speech for Cluentius, and there are many things in the latter which Cicero adopted from his study of that magnificent specimen of argument and declamation. With respect to the greater difficulty of Cicero's speech, it arose from Cicero's unscrupulous mode of handling facts, and his deliberate aim at mystifying the jury about them. In speaking of a case he had to plead about seven years before, Cicero very neatly describes what his course of procedure is in this one for Cluentius: see chapter 19, *init.*: "Collegi me aliquando: fortiter esse agendum; illi aetati, qua tum eram, solere laudi dari, etiam si in minus firmis causis hominum periculis non defuissem. Itaque feci: sic pugnavi, sic omni ratione contendi, sic ad omnia confugi, quantum ego assequi potui, remedia ac perfugia causarum, ut hoc (quod timide dicam) consecutus sim, ne quis illi causae patronum defuisse arbitraretur." "At last I gathered myself together. I said to myself, 'I must take a bold course: it is generally thought to be a praiseworthy thing in young pleaders like me, [he was then 33], not to abandon a man in his emergencies, even though his case is not very strong.' And so I did take a bold course. I fought the battle in such a way; I exerted myself so much in every fashion; I had such recourse to all the shifts and dodges of the courts, that (I say it with diffidence) nobody thought any advocate could have done more."

That is why Cicero's speech for Cluentius is more difficult than any speech of Demosthenes ; it is full of shifts and dodges. This is no disparagement of the speech as a model of the process of persuasion. In order to judge of the persuasive force of the three speeches which have been referred to, you have only to ask yourself, "how do Aeschines and Demosthenes now stand in my estimation, relatively? What sort of a man, or miscreant, or social nuisance, and moral assassin was that low mongrel, Meidias? is it possible that ever there lived a villain like Oppianicus senior, a woman so lost to every human feeling, except revenge, as the mother of Cluentius?" It is in that way that you can properly judge of the merit of speeches ; by the number of degrees of indignation that they indicate in you. It is not by bursts and breaks of what every one can see to be triumphs of expression. Cicero's tranquil periods are generally the most persuasive. The declamation is measured out by a stop watch, or according to the quotation of a thermometer of very elegant and ingenious construction.

In this way Cicero's speech may very fairly compete with any speech of Demosthenes. For my own part, I must confess that I have even a less favourable opinion of Oppianicus, considered as a desirable member of society, than of that arch-ruffian, burglar, and stuck-up reptile, Meidias. As for Sassia — there are no words.

Professor W. Ramsay compiled his text very carefully, with apparently all the requisite data and critical apparatus. As a critic he inclined too much, in my opinion, towards a preference in favour of manuscripts, but not to anything like a servile extent. He is a long way removed from that class of editors who seem to have no natural ability to recognise a right thing in a matter of criticism ; the orbs of whose mental vision are furnished with no retina on which the face of truth can reflect itself ; who

have no will or capacity for detecting an error in the draught of a manuscript. Granted that a certain thing is an old manuscript, then they say "there are no mistakes in it—none at least that you can correct. Copyists make mistakes now-a-days, but they made none of any importance 500 years ago, nor had the copy, from which they transcribed, gathered any mistakes in the course of the previous 2000 years."

Ramsay does not belong to that too popular class of editors. Still he is what I should call a timorous critic; too fond of seizing with a desperate grasp the chips and straws and splinters of some booby transcriber's blunder; instead of striking out with a steady good faith in his sympathy with the author, and a consciousness of his force to reach the life-buoy of that author's meaning. I believe I shall be able to prove that in several indubitable instances he let slip the opportunity of introducing important corrections into the text of this speech.

I shall not attempt anything like an analysis of the speech, nor an examination of the whole text: I shall only record some critical results of at least a once-a-year overhauling of the speech and text since W. R.'s second edition was published in the year 1869. A mere narration of the facts referred to in the speech would take up a very large space. The learned and eloquent editor himself has hardly told the story completely, nor in his usual well-arranged, graphic, and interesting form. Perhaps it is a little unorthodox to make a school-book interesting; and the worthy Professor abstained from telling the very intricate story prettily, from conscientious motives. However that may be, I must refer the reader to W. R.'s own account, until some future editor has written out Cicero's brief in a more engaging form. I have to watch the great chief himself, and could wish for eyes as many as those of Argus, and as sharp as those of Lynceus. They will at least be admiring

eyes; for so far as my own insignificant knowledge of languages goes, it seems to me that no man, no not Demosthenes, ever knew his own language as well as Cicero knew his. He knows the words as well as you know your own finger-nails, and he always puts them in the right place.

There is one fact of a *general* character which I am bound to touch upon. Nine-elevenths of the speech, the first fifty-nine chapters, have nothing to do with the direct charges upon which the jury would have to give their votes. The Roman juries would seem to have been quite capable of finding a man guilty of bigamy because they believed him to have committed forgery eight years before. The great trouble, time, and space which Cicero devotes to the removal of prejudice against his client, seem very singular to our modern notions. A barrister who was defending a man charged with poisoning three persons (as Cluentius was) would hardly take up nine-elevenths of his speech with proofs that his client had not bribed some jurymen in a trial long ago.

That is how the case looks to us at first, and not without cause. There are, however, some circumstances in the matter of Oppianicus junior *versus* Cluentius, which seem to qualify that view. The latter is charged by the former with a capital crime under the *Lex Cornelia de Siniis et Veneficiis*. This law provided for the punishment 1) of those who had committed wilful murder or arson; 2) of those who were convicted of poisoning; (3) of those senators who were found guilty of conspiring to procure an accused person's condemnation on a capital charge.

It was under this *Lex Cornelia*, with its three heads, that Cluentius was being tried on the occasion when Cicero defended him. He is accused only under the second head, of poisoning three individuals; not directly of anything more. But the counsel on the other side, Titus Attius

Pisaurensis by name, had availed himself of a unanimous public opinion that Cluentius had virtually broken the third head of that *Lex Cornelia*, eight years before. Cluentius had conspired to procure, and had procured by bribery, the civil death of his stepfather, Oppianicus senior. Attius would say: "Is it not a cruel and a monstrous thing that Cluentius should have destroyed his stepfather in the way that this law forbids, and yet get off with impunity because he is not a senator? I now present him to you in the character of a practised and inveterate poisoner, under the same law that you know he outraged before. All the world knows that he was guilty then. There is not a doubt of it. Proofs upon proofs, in national records and otherwise, have confirmed his guilt. Here we have him again. If you should feel any doubt about his guilt in one, or even two, surely not in all, of the cases of poisoning which I now charge against him, yet you know that he practically broke this law in the case of his stepfather. If ever there was a substantial case against a man whom public opinion and society at large have black-balled in every possible way, it is that which I now recommend to your intelligence and your sense of justice."

I think every one will admit that Attius *had a case*. Public opinion was right about that former affair. Cluentius had then accused his stepfather, Oppianicus senior, of an attempt to poison him. There was bribery on both sides, and Cluentius was able to bribe the odd man. Oppianicus was found guilty by a majority of two, condemned to lose civil rights, and live away from Rome. Cicero knew well that his friend Cluentius had crushed a private enemy by over-bribing the jurymen in that trial. He boasted, Quintilian, I. O. 2, 17, 21, "that he had thrown dust in the eyes of the jury on the trial of Cluentius" (W. R.), "*se tenebras offudisse iudicibus in causa Cluentii*."

Cluentius was guilty of bribing a Roman jury to con-

solemn Oppianicus senior. In the present trial, Oppianicus junior is pursuing a *vendetta* against the man Cluentius, who had ruined his father. Oppianicus junior thought that he had sufficient evidence about the three direct charges of poisoning, when helped out by public opinion in the other case, to procure the condemnation of his father's murderer (in a civil sense). His counsel Attius thought so too.

Cicero, on the other side, had all the law in his favour. Cluentius was not amenable to the *Lex Cornelia* on the third head. Cicero chaffs young Attius in a friendly patronising way on his hot notions about moral guilt and absolute equity. "The worst consequences will follow if you, gentlemen, try to be equitable in the way my learned young friend advocates. Your free constitution is gone, and all the most solemn sanctions are violated, if you take me step in that direction. Absolute equity is an absurd and illegal thing."

This plea was quite true and fair. Cluentius was not amenable to the law under the third head. "If I had nothing to do," says Cicero, chapter 53, "but to win this case, I would just read out the law, and sit down." He drives right home that point of law through more than seven pages of W. R.'s book, and six chapters, without sitting down at all. It was a point that he could not afford to lose. The case was gained by that point. Cicero's boast that he threw dust in the eyes of the jury, only refers to the whitewashing of his client's character in the matter of the former trial.

How was the whitewashing to be done? This way. After finishing off that point of law to a sublime perfection, Cicero turns round and, with a noble indignation, announces, "but my client is an honourable, clean-handed, and most estimable country gentleman: he forbids me to defend him on the strict letter of the law. With tears

in his eyes he adjured me not to do so. He cares for nothing so much as the good opinion of his countrymen. 'Prove me innocent of that old slander, that is poisoning' (perhaps he used some other word) 'my life; for of course I shall be acquitted on these direct ones.'" Cicero *sympathises with his friend, and pretends not to argue the point on the strict letter of the law.*

Here, in logical sequence, follow the first fifty-nine chapters, exactly nine-elevenths of the speech. Cicero's line of argument, after the calm and well-concocted introduction, which was a most important preparative, is a very direct and straightforward one, if you will take it as your clue. He puts it forward (I would say, audaciously, but for that wonderfully insinuating and seductive preamble) at the end of chapter 23, § 63, which I translate very literally: "There is one point which I am sure no one, however prejudiced against Cluentius, will refuse to admit; that if it be granted that that court was bribed, it must have been bribed either by Cluentius or by Oppianicus. If I can show that it was not bribed by Cluentius, I prove that it was bribed by Oppianicus; if I prove that it was bribed by Oppianicus, then I clear my client." Both Cluentius and Oppianicus had bribed as hard as they could, and Cluentius had bribed hardest.

Cicero was going to use the same line of defence in the trial of his friend, T. Annius Milo, fourteen years later. It had succeeded in this case of Cluentius. He was going to say (but circumstances frightened him), after a calm and dispassionate introduction had furnished him with a stalking-horse from which to shoot the fallacy at the heads of the jurymen: "either Milo waylaid Clodius with intent to murder him, or Clodius waylaid Milo. If I can prove that Milo did not waylay Clodius, then Clodius is the man who wished to murder, and Milo is not." He then proceeds: "Milo was going on a journey for public business that he

could not avoid. Clodius had no intelligible motive for his journey, except that he might waylay Milo and assassinate him. Milo did not want to kill Clodius: Clodius did want to kill Milo. In the scuffle it was Clodius who got killed by one of Milo's servants, to avenge the supposed assassination of his master."

The fact of the case was, that Clodius was coming up to Rome after dining in the country, without a thought, just then, of killing Milo. Milo was going to his native town to take part in some petty provincial pageant, without a thought, just then, of killing Clodius. Neither of the two, just then, was thinking of killing the other. The two parties *happened* to meet at Bovillae. A scrimmage arose as soon as the two knew who they were respectively, and Clodius got wounded. When the affair was over, and the wounded Clodius had been carried to an inn by the way-side, Milo reflected that he might as well be in for a sheep as a lamb, and sent some of his bravos to make the wound of Clodius a mortal one. But the death of Clodius would be a spark on gunpowder: Milo must hurry back to Rome, and the good folks at Lanuvium must find out the way to do without a flamen for a while.

The speech for Milo is so ingeniously managed that you could never find out the fallacy except by dint of unspared pains and study, and the admission of some further circumstances recorded by Asconius. It is like a faulty chess puzzle that you cannot solve, and yet feel sure that all the moves are sound and fair, if you knew them; the reputation of the proposer is so good, and the position in itself so pretty and prepossessing. There is no doubt that Cicero would have saved Milo, if the mob had not been roused to a state of rabid fury by the loss of their favourite Clodius. Milo was literally right when he wrote to his clever friend Cicero: "how well it was you did not

deliver that speech: I should not now be enjoying these fine-bearded Marseilles oysters."

Cluentius was a richer man than Oppianicus, and was able to bribe a majority of jurymen so well as to obliterate all material traces of his bribery. Eight years had elapsed, and it was now not quite impossible for Cicero to make him out to be a very respectable man. Cicero's task was a practicable one. That first trial must have cost loads of money, but nothing in comparison with what the present trial cost. Cluentius had to bring up from Larinum, Teanum, Luceria, and Bovianum, from Samnium, Fretanum, and the country of the Marrucini, everybody who was physically able to come to Rome and give his word and influence for Cluentius. "Know ye, gentlemen," says Cicero, 'Scitote, judices,' "that all persons at Larinum who were not bedridden have flocked to Rome to intercede for my client; know ye, that that town is now committed to the protection of little children and females!" It must have cost hundreds of thousands of pounds; and I suspect that the father of young Balbutius did not give evidence for nothing in favour of Cicero's client, who was accused of poisoning his son. The mock-pathos of that passage is one of the most delicious things to be found anywhere.

Cluentius had not poisoned either of the three individuals; but in the former trial he had (on very good provocation, it is true) deprived his stepfather of civil rights by bribery. It suits Cicero's purpose to talk as if his client were being actually tried under the Lex Cornelia's third head, which Cluentius had only broken in a moral sense. Then comes the triumphant plea, "he is not amenable," followed by the scornful refusal of his client to be relieved of the cloud under which he was living, on any other than moral, not legal, terms. He could easily be shown to be innocent of the direct charges, and so Cicero devotes nearly

all his time to the proofs that his client had acted honourably before.

The first of my corrections of the text to which I shall invite attention is in chapter 60, § 167, p. 130, where Cicero is handling the second of the three direct charges. Here is a translation of the context: "The second charge of poisoning is, that an attempt was made, at my client's instigation, to poison the younger Oppianicus, who is now in court: that the attempt was made at the time of the intended victim's wedding, when a large party of people were present at the wedding-breakfast, as is usual with the people of Larinum. The accuser alleges that when the poison was being handed to him in a cup of mead, a friend of his, named Balbutius, seized the cup as it was passing, drank it off, and immediately dropped down dead. Now if I were discussing these allegations, as if I seriously thought that a charge of crime required to be demolished by me, I should treat at length upon circumstances which now my speech passes over briefly. What had Cluentius ever done that was not abhorrent from such a crime? *Why was he so much afraid of Oppianicus, when he, Oppianicus, was unable to utter a word in this very case? whereas accusers of my client would never be wanting as long as his own mother lived. Did my client do it from a wish that no degree of danger to himself might be deducted from that which was threatened in this trial, and that a new charge might be added?* What sort of a time was that for administering poison? on that day? in that crowd of people? By whom was it handed? [Cluentius was not present at the breakfast. J.F.D.] Where was it got? How came it to be intercepted? Why was the attempt not repeated? It is a big, impudent lie. *Magnum et impudens mendacium!*"

The words which I have printed in italics are misplaced. They belong to the middle, not of this, but of the next chapter. I cannot imagine why all the editors should

have passed over those most puzzling lines, without confessing their puzzlement. Surely it is the duty of an editor to point out the unintelligible parts of the text that he is editing, and not to pass on as if he had not seen a snake in the grass. For I deny that any editor, Orelli, Classen, Baiter, or Ramsay, could make any sense out of those italicised lines in that context. Why, pray, could not young Oppianicus utter a word against Cluentius in this very trial? Sure enough he is the prosecutor. It is he who says everything. It is he who says everything that Attius pleads. He is, at the moment, enjoying and exercising the full rights of a Roman citizen.

The lines refer to the elder Oppianicus, who was an exile, civilly dead; and they belong to the following context, chapter 61, §170: "Quo tandem igitur *Habitus* [*i. e.* Cluentius] *metu* adductus tantum in se facinus suscipere conatus est? quid autem magno opere Oppianicum *metuebat*, quum ille verbum omnino in hac ipsa causa facere nullum potuerit, huic autem accusatores, matre viva, deesse non possent? quod jam intelligetis. An ut de causa ejus [this ought to be 'sua'] periculi nihil decederet, ad causam novum crimen accederet? Quid erat quod jam Oppianicum poena affectum pro maleficiis, ejectum e civitate, quisquam *timeret*? quid *metuebat*? ne oppugnaretur a perdito? an ne accusaretur a condemnato? an ne exulis testimonio laederetur?" It is impossible for language to be more eloquent.

Here I have inserted the misplaced lines, and for the sake of reference I have put four words in italics. They indicate the argument: "if Cluentius tried to poison Oppianicus senior, then the most probable motive for the crime would be fear." What was he afraid of? what *could* he fear? The argument is thoroughly appropriate, although factitious. Cicero is declaiming.

But Cicero could not dare to use that argument from fear in the context from which I have rescued all those

lines, and he did not. That charge of poisoning Oppianicus, the son, required to be argued on its merits. Cluentius had not tried to poison, but he did fear, and might very well have wished to poison, the son; for there was the danger. Oppianicus junior had already taken measures, and announced his intention of accusing Cluentius of poisoning C. Vibius Capax. This was out of revenge, and with a view to raking up again the old widely-spread scandal of the former trial.

I think I may regard this displacement of lines as fully demonstrated, and will now proceed to discuss another. It occurs in chapter 38, §106. The words are:—

“Quare eorum, qui absolverunt, misericordiam non reprehendo: eorum qui in iudicando superiora iudicia secuti sunt sua sponte, non Staieni fraude, constantiam comprobo: *eorum vero, qui sibi non liquere dixerunt, sapientiam laudo*: qui absolvere eum, quem nocentissimum cognorant, et quem ipsi bis jam antea condemnarant, nullo modo poterant: condemnare, quum tanta consilii infamia et tam atrocis rei suspicio esset injecta, paullo posterius patefacta re, maluerunt. Ac ne ex facto solum sapientes illos iudicetis,” &c.

This is perfectly unintelligible, and yet the editors say nothing about it. Those words which I have printed in italics ought to come after “maluerunt,” with a colon at that word, and a comma at “poterant.” Now everything is quite clear. Cicero is summing up a charitable estimate of the morality of the jury on the trial of Oppianicus senior, when one or other of the two litigants was suspected by the jurymen to be bribing. If you restore the italicised words to the place which I have defined, the meaning will be: “So I have no fault to find with the leniency of those who voted for the defendant: I think well of the consistency of those who, in giving their votes, acted in harmony with their former findings; of their own accord, and through no

collusion with Staienus." [Cicero is trying in his insidious way (1) to ingratiate himself with jurymen generally, (2) to establish the credit, from their own point of view, of all the jurymen at the trial of Oppianicus senior, (3) to show what a much larger majority of votes Cluentius must have had, except for the suspicion of foul play that was excited by the other side]. "These, who could by no means acquit a man [Oppianicus senior] whom they had found out to be the worst of criminals, and whom they had themselves virtually found guilty on two former occasions [when his accomplices, Scamander and C. Fabricius, were condemned] preferred to give a vote of condemnation, when such a bad character was attached to the court, and the suspicion of such shocking foul play; the facts of which were shortly after made public: [that is, the bribery of some jurymen by Oppianicus through Staienus]; and I really commend the good sense of those who said that the case was not clear to them. That you may pronounce this third class of jurymen to have been sensible men, not only from the facts which were afterwards discovered, but from their own personal characters," &c., &c.

I do not think that I need argue this point further. There is a displacement of a line, which is now put in the right place. Cicero's next words, &c., also require this change.

There is another little displacement which I would like to rectify. It concerns only two words and Cicero's Latin-ity. In chapter 30, § 81, we find: "*deinde condemnatum adducebam, ut ne eripi quidem pecunia posset.*" I wonder if Cicero would object to my putting "*pecunia*" where "*eripi*" stands in the text, and "*eripi*" in the place of "*pecunia*"?

I will now proceed to cast out one or two interpolations. In chapter 54, p. 122, there is read: "'*qui eorum*:' (the words of the *Lex Cornelia*) '*quorum? Videlicet, qui supra*

scripti sunt. *Quid interest utro modo scriptum sit?* Etsi est apertum, tamen ipsa lex docet."

The words that I have printed in italics are a gloss made by some one who was not understanding the passage, but thinking that "*quorum*" was the same as "*qui eorum*." The words are absurd, and have no possible relevancy with Cicero's argument. "*Quorum*" could not possibly occur in the terms of the law. You must pass your pen through those words in italics. I seem to myself to have seen something of the same sort of thing in a Lettera di M. Francesco Berni, No. xii., "Sotto la soprascritta della quale, o volete sotto la cui soprascritta, *utroque enim modo dici potest*." (Milano. Dalla Società Tipographica de' Classici Italiani, 1806; p. 224.)

You may also strike your pen through the words "*dentatam et tortuosam*," in chapter 64, § 180. Doctor Strato had used a brace-and-bit, and then a fine saw, in making that hole in the bottom of the trunk. Cicero was not accurately made up in the matter of how to make a hole and abstract the property. He is right about the fine saw "*serrula*:" he does not know that a brace-and-bit was required before the fine saw could be used. He mixes up the action of the two tools in his expression, "*aduncam ex omni parte serrulam*." "*Aduncam*" refers to the two teeth of the "*bit*," on opposite sides of a diameter. "*Ex omni parte*" is "*sheer ignorance, ma'am, sheer ignorance*" on Cicero's part. "*Serrula*" is right for the fine saw. The interpolation was made by some one who wanted to supply the defect in the description. You may dismiss the words "*dentatam et tortuosam*," on the ground that they had nothing in the world to do with this piece of villainy.

We have now illustrated with examples two ways in which manuscripts are corrupted, and editions made unintelligible. Another, and the most common way, is by the transcriber's writing a word which is like the original

word but not the same. Examples of this third way are not wanting in the speech for Cluentius. Speaking of the last word in chapter 45, Ramsay says: "In this very difficult passage we have exhibited the text as it is found in the majority of MSS. and in the best early editions. But we are deprived of the aid of a great number of MSS. in which a whole leaf is wanting in this place. Lambinus and Graevius insert the word "non" before "comperisse;" and if we adopt this conjecture, we may extract a satisfactory meaning from the sentence." It is "nihil" that Lambinus inserts in his folio edition of Cicero, which I have consulted. (For the benefit of those young students who may be as ignorant of facts as I was myself until a few weeks ago, I will here intrude a few extracts. The first is taken from a book entitled: "*Histoire de la Reine Marguerite de Valois, &c. ; par M. A. Mongez ; Chanoine Regulier. A Paris, 1777.*" The Catholic author is speaking of the massacre ("laniena" in Scaliger) of the Huguenots on the night of St. Bartholomew's day, 1572 A.D. "Ni le rang, ni la science, ni la religion même, ne furent respectés dans la plupart des victimes immolées dans ces jours malheureux : Pierre Ramus, fameux Mathématicien et bon Catholic, y périt par la main d'un de ses envieux, qui profita du tumulte pour le massacrer ; Denis Lambin (Dionysius Lambinus), sçavant commentateur et Catholique comme lui, mourut de la frayeur qui le saisit en voyant égorger Ramus." Peter Ramus was also a commentator on Virgil's Eclogues and Georgics. I have his book entitled: "*P. Rami Veromandui, Regii Eloquentiae et Philosophiae Professoris celeberrimi, Praelectiones in P. Virgilii Maronis Georgicorum libros iiii.: diligenti recognitione multis in locis emendatae. Francofurti. Apud haeredes Andreae Wecheli; 1584.*" I suppose they were chatting together about Virgil and Cicero, without any suspicion of what Catherine de Médicis and "le Roy

Charles" and "Messieurs de Guise" were doing outside. The following extracts from Scaligerana are less exciting, but are due to the memory of the learned Lambinus. "Lambinus in Horatium, opus praestantissimum. Lambinus avoit fort peu de livres." "Lambinus erat vir bonus et doctus, qui Latinè et Romanè loquebatur, optimèque scribebat.")

No! you can extract no satisfactory meaning from an expedient so shallow. "Non" or "nihil" is as bad as Leclerc's and Classen's change of "esse" into "sese." Both expedients are careless and indefensible. The whole sentence runs:

"Duos solos video auctoritate censorum affines ei turpitudini judicari: aut illud afferant, aliquid esse quod de iis duobus habuerint compertum, de ceteris comperisse."

We need say nothing about Classen's "sese." Lest Lambinus's "nihil" should impose on any hasty reader, let us take a glance at the context. Cicero is occupied all through the next chapter, 46, with the promulgation of the following doctrine; that the rough and ready way in which a general may be allowed to punish a whole army of run-aways, by executing every tenth man, cannot be allowed to be introduced, in any form, into the regular dispensation of justice. "If all are guilty, all ought to be punished; especially when the punishment is only that of a censor's note and animadversion. You, judge and jury, cannot suppose that those honourable men, those censors, would make a dash, and pick and choose two persons to condemn, when all are guilty as in the case of a runaway army."

The correction is easy and *certain*, if you have grasped in thought the argument. I am too much grieved to be amused at the simplicity of those censors of the present day who give their sanction to a sentence like the following, Soph. Ai., 1876, p. iv.: "Even if we knew more facts

than ever can be known about the Greek of the transition period, the best scholar would seldom be able to tell with precision what word the subtle inventive art of Sophocles *must* have chosen to complete a context that now seems to us imperfect." The phrase "Greek of the transition period" appears to be very *haut ton*; the French polish is so fine, and the otto of rose unexceptionable. Of course it does not matter to a critic what is the date of the book he criticises; he criticises it always according to the language of the book's genuine date. You judge Sophocles by the stage-Greek of Sophocles' time, and you know what sort of Greek went before, and what came after. The critic who can make an undeniably true conjecture, and restore a passage in "the subtle inventive" phrase of Cicero, can also do the same for Sophocles, if he knows Greek as well as he knows Latin. The doctrine enounced in that quoted sentence is downright false and pernicious. How we must have degenerated if the University of Oxford, that has always been a source of sound and exact learning, can allow that sentence to pass as fit to be put before a school-boy! I maintain the direct opposite to it, with a modification. Not the "best," but a good scholar, as things go, *can* tell with precision what *MUST* have been the word of Sophocles. It is to Sophocles that he would wish to appeal, and to the men who understood Sophocles in Sophocles' time. It is the one ideal (not two) of Sophoclean thought and diction that he, the critic, is trying to find; and sometimes he knows that he has found it. He would gladly greet the chance of a discovery of a genuine and correctly copied play of Sophocles, which should be put before him by, say, the Clarendon Press Delegates, with ordinary corruptions of their own insertion in a copy, so that they might be able to test the emendations he would make by reference to the immaculate original. Such a happy settlement of the dispute being, I suppose, impossible, we can

only say that no critic goes about with racks, iron-boots, and thumbscrews, to compel any one to accept his emendations. On the other hand, it is not well to apply the pressure of such statements as that just quoted to the brains of boys and young students. The science of criticism is an "exact" science, just like Music, Mechanics, Mathematics, and Comparative Philology. There is no "cacoethes of conjecture" in it, any more than in Comparative Philology, or whatever the right name may be for a science which knows well that it has to be just as careful in conjecturing as textual critics are. Hitherto Comparative Philology is quite as much amenable to the charge of "cacoethes of conjecture" as any other science. If you turn out conjectures from the heads of inventive men, where will be your sciences, any one of them? There is no "cacoethes" (the word is so pretty) in criticism; but there is a thing which has got about of late, that popularisers of the results achieved by genuine critics should put themselves forward and say with authority, "We have stereotyped that form of the text: no further changes will be allowed to be made." At the same time, these persons have not shown that they possess a true critic's knowledge, fine taste, exact judgment, enthusiasm, and devotion. That is a sort of thing which really exists, and it is killing, for this generation, the hope of progress. Goethe says in one passage of his "Opinions" which are published in English, that it will take 300 years to find out the text, textual interpretation, and philosophical meaning of the Greek Tragic Drama. I do not give his exact words, but that is what he wanted to say. There is more contained in that opinion than meets the ear. Here you come, before 100 years are out, and forbid the student to try to find out the true original form of Sophocles' text. You say that in cases where you are obliged by the torture which common sense applies to adopt many emendations which cost the life-

long labour of some very learned genius, you say that you "cannot undertake," *l. c.*, to put his name before the student as deserving of honour. You say, in short, "there *is no science* of criticism: well, there *is a science* of criticism, but it is such a mean and contemptible one that those persons who make discoveries in it do not deserve to be mentioned: therefore, students will do well not to alter our text, nor try to find out the right word; they will get no credit, they shall get no reward." The book from which I have quoted that sentence also contains so many things from which I dissent, and which I believe to be wrong and delusive expositions of the Ajax, that I shrink from the labour of exposing them. It is quite refreshing, on the other hand, to see that Paley has put Musgrave's name into his school edition of the Medea in the "Cambridge Texts" series. We will be thankful for small mercies.

I regret that the task of making a protest against conservative editions that "cannot undertake" to mention the names of the men who have mainly made out their text should have fallen out thus. The protest is now made, and my duty is done in a very momentous, a very serious matter. "At hercle," the Greek Tragedies, and their hand-maid, ἡ Κριτική, are very well able to take care of themselves in the long run.

The correction, I say, is easy and certain if you can grasp the argument. Read *comparasse* for "*comperisse*." Then the translation will be: "I see that only two persons have been actually judged by the censors to be involved in that scandalous transaction: therefore only two were believed by the censors to be guilty. Else we must suppose," Cicero says, "that the allegation is, that the censors had found out material facts about the guilt of those two persons, and had come to a private agreement that the rest were also guilty."

The fact being that the censors L. Gellius and Cn.

Lentulus affixed a note of censure to the names of two persons on the list of senators, viz., those of M'. Aquillius and Ti. Gutta, and had expressly stated in the note of censure, that they, the censors, believed those two senators to have been bribed by Cluentius in the trial of Oppianicus senior, Cicero proceeds then to make the following point: "Either the censors believed those two persons alone to be guilty of bribery, and the rest of those who voted for my client to be innocent, and did, in this way, pronounce them innocent; or else we must suppose that they believed all to be guilty, but fastened the stigma only on two, in whose case the guilt appeared to them more manifest." He then shows that it is impossible to imagine any censors to have acted in so unconstitutional and arbitrary a manner. Therefore on the authority of the censors, "you must allow that all were innocent except those two persons." Then he proceeds with his case: "I shall easily show, by several arguments, that these two, M'. Aquillius and Ti. Gutta were also innocent."

It is clear, I think, that the "non" (or "nihil") will not do. It supposes that all those judges who had voted for Cluentius were ostensibly innocent, except two, because the censors could find out nothing against them. How will this comport with Cicero's comparison of these judges to an army of runaways, where all are equally guilty, all manifestly so?

That use of "comparare" hardly requires to be illustrated. You have, fifteen lines below, "*idcirco illa sortitio comparata est*," "and so it was that that telling off by lot was agreed upon." Everyone, barring all Macaulay's school-boys, is aware that there were three ways in which Roman magistrates of equal standing could have a matter settled. It could be settled "*sorte*," by casting lots, or "*comparatione*," by mutual private agreement, or "*extra ordinem*," by command of the senate. In the present case Cicero

supposes, for argument's sake, that the censors came to a private agreement that all the judges were bribed who voted for Cluentius on the trial of Oppianicus senior; but that they, the censors, agreed between themselves to fix the note of censure to the names of only two, M'. Aquilius and Ti. Gutta.

It would be superfluous to bring forward passages in proof of that use of "comparare." But I may call attention to a passage where we have "parare" in the same signification; "se paraturum cum collega," Cic. Fam. 1, 9, 25, "that he would make things straight, or, equal, or, all right, with his colleague." The root is "par."

Leaving this point as being even more than sufficiently argued, I will refer to chapter 21, § 59: "hic iudices ridere: stomachari atque acerbe ferre patronus, causam sibi eripi, et se cetera de illo loco, '*Respicite iudices*,' non posse dicere: nec quidquam propius est factum, quam ut illum persequeretur, et collo obtorto ad subsellia reduceret, ut reliqua posset perorare." Ramsay makes no critical remark: but "nec quidquam propius est factum quam," &c., has given me, I confess, a good deal of trouble. It reads so exactly as if Cepasius had really run after C. Fabricius (who from a sense of guilt could not stand the argument any longer), collared him, and dragged him back into court; that he, the pleader, might be able to run out his line of commonplaces. *Propius*, written as it usually is in a MS., would be much the same as *prius*; so that the sentence is ambiguous to a critical examiner. I conclude, however, that Cicero put the description in that extra-graphic way for the purpose of making it more ludicrous; and that the literal meaning is, that Cepasius was *very near* running after the accused, and hauling him back without ceremony. Since we cannot be sure whether the word ought to be *propius* or *prius*, Cicero has, to my notions, deliberately sacrificed perspicuity to sensational effect.

On p. 94, line 2, we have: "Quid? Albiana pecunia vestigiisne nobis odoranda est, an ad ipsum cubile, vobis iudicibus, venire possumus?" All other editions but Ramsay's and Classen's, and all manuscripts except two, read "ducibus." "Vobis iudicibus" in itself has no propriety of meaning. Ramsay and Classen adopted it in preference to "ducibus" for a foolish reason. Ramsay says that "*ducibus* is a reading which, at first sight, seems appropriate, since it keeps up the metaphor. But, upon reflection, it will be seen that Classen is right; for in no way could the jurors be said to be leaders or guides in an investigation the mysteries of which were to be disclosed to them by the orator himself."

Of course they could not. Cicero could not suggest such a thing. "Vobis" does not mean the jurymen. It means "you, the prosecutors and your party, you are our guides: you managed your little game in such a bungling way as to lead us straight into the beast's den, without any trouble of sniffing about for smells, or looking for traces."

There is something wrong in chapter 33, § 91, p. 97, "et quod C. Verres, praetor urbanus, homo sanctus et diligens, subortitionem ejus in eo codice non haberet, qui tum interlitus proferebatur." What is the antecedent of "qui"? Is it "codice" or "ejus"? I am of opinion that "eo" is an interpolation, and that the meaning is: "and because Caius Verres, that paragon of scrupulous virtue [this speech dates 66 B. C.] had no substitute on his schedule for that man, whose name was then brought forward on the schedule with an erasure over it." "Eo" is an interpolation caused by that use of "qui" = "cujus nomen." You cannot translate the text as it stands, and you cannot do without "ejus." Therefore, in short, "eo" is an interpolation.

"Ejus" ought to be read for "eis" in the following sentence, p. 118, chapter 51: "L. Crassi auctoritatem se-

quor, qui ~~quum~~ Cn. Plancum defenderet, accusante M. Bruto, homine in dicendo vehementi et callido, quum Brutus, duobus recitatoribus constitutis, ex duabus *eis* orationibus capita alterna, inter se contraria, recitanda curasset," &c. This corruption arose from compendious writing.

Another instance of corruption from the same cause occurs, I think, in chapter 37, p. 102, § 104: "Adducti iudices sunt, non modo potuisse honeste ab eo reum condemnari qui non perpetuo sedisset," &c. Read "Animum inducti iudices sunt," "the jury were induced to believe," that is, by the pleader.

There is a sentence of frightful difficulty in the same chapter: "Nihilo minus enim potest, ut illam multam non commiserit, accepisse tamen ob rem judicandam captam: nusquam Staienus eadem lege dixit: proprium crimen illud quaestionis ejus non fuit." Orelli and Classen give the passage up as desperate. Orelli thinks that several words are lost. I should say that "*pecuniam*" has certainly been lost before "ob rem judicandam." "Captam" is, of course, a word of bad signification, as in "*pecunias exactas, captas, imperatas*," Cic. in Pison. 16. The tremendous difficulty is in "nusquam Staienus," &c. One cannot see any possible motive for dragging in Staienus here. I almost agree with Orelli and Classen, that there is a considerable lacuna. It may be of use, however, to the student, to record some points which may help in studying the passage. Staienus was evidently of senatorian rank; see "quum quaestor esset," chapter 36, § 99. He does not seem to have been tried on any charge but that of "*majestas*," having been the means of bringing about a mutiny among the legions when he was quaestor. But in prosecuting Staienus for "*majestas*," the accuser had tried to throw discredit on his character on the ground that he had been bribed by Oppianicus senior, in the famous Junian trial. In the same way Bulbus was condemned on the charge of

"majestas," and his accuser blackened his character in court with the same paint and brush. The point of the charge of "majestas" was, that a certain act was destructive of the constitution. One is reminded very much of the *προβολαὶ* at Athens. It was not irrelevant to show that a man accused of violating the constitution in a direct way had also done it in a way that was less direct. The court in which Cluentius is now tried was empanelled under the provisions of the *Lex Aurelia* passed four years ago. The other trials referred to in this context, those of C. Fidiculanus Falcula, Bulbus, and Staienus, were held under the *Lex Cornelia Judiciaria*. The *Lex Cornelia de Sicariis et Veneficiis* was probably not yet passed at the time of those trials: otherwise, Falcula would have been arraigned under it, and not "*de Pecuniis Repetundis*." That is all the help that I can afford to the student.

Cicero's line of argument is so tortuous, insidious, insincere, unscrupulous, and, in a word, rhetorical; it advances a thing so often as credible in a certain context, and grossly absurd in another, that one hardly knows what to think of a passage like that. In this very speech he appeals to the sanctions of religion as very grave and respectable, chapter 58, § 159, "*maximique aestimare conscientiam mentis suae, quam ab diis immortalibus accepimus*," "jurymen ought to attach a very high importance to the testimony of their own conscience which they have received from the immortal gods" (it is Cicero who is "the immortal gods" for the jurymen in this case); and he derides them with the most contumelious contempt in another place, chapter 61, § 171, "*nisi forte ineptiis et fabulis ducimur, ut existimemus eum apud inferos impiorum supplicia perferre*," etc. "*Quae si falsa sunt, id quod omnes intelligunt*," etc.: "unless indeed it happens that *we* are influenced by follies and fables, and imagine that the [Oppianicus senior] is now suffering in hell the tortures of the damned. But if these

notions are false, as everybody knows," etc. All orators of the highest rank do this. Demosthenes does it, but in a less flagrant way than Cicero. Perhaps it would be better to define *rhetoric* as "the art of talking a person into the disposition to give his vote for you, or for your client," and not "the art of persuasion." "Persuasion" would seem to mean something more respectable than the formation of a disposition to give a vote out of regard to an overpowering force of fallacies, trickeries, and deliberate misrepresentations.

The practical force of the above reflection is, that it is just possible Cicero thought it might serve his purpose at this point of his pleadings to rehabilitate Staienus for the moment, in the words: "nusquam Staienus eadem lege dixit." Perhaps Cicero means to say: "You know that as early as the trial of C. Verres it was thought [Cic. in Verr. ii. 32] that Staienus took money first from Oppianicus the accused, and then more money from Cluentius the accuser. Well, Staienus was charged collaterally in court, under the law *de majestate*, with taking money from Oppianicus, but he was never publicly charged, as Falcula was, with taking money from Cluentius." There I must leave it.

My contributions to the purification of this most *persuasive* text are drawing to a close. I have never wished to imply that it is an easy thing to discover a *certain* emendation that "*must*" be true. If you do nothing else, you may, perhaps, make a hundred in your life's time. It is as reasonable an occupation as any other; it is a hobby more reasonable than the serious occupations of several classes of society. Perhaps "all is vanity;" but some vanities are very laborious, and I think of my hundred, or so, emendations, as Balzac did of one of his cleverest and most laborious works: "et certes est-ce bien ung grief labour que d' excogiter Cent Contes Drolatiques." In chapter 41, § 113, p. 106, we have: "Nego rem esse ullam

in quemquam illorum objectam, quae Fidiculanio objecta non sit: aliquid fuisse in Fidiculanii causa, quod idem non esset in ceterorum." Now if that sentence could by any possibility have occurred in a speech of Tacitus, and not, professedly, of Cicero, you would not know what to do with it. But, since the words profess to be those of Cicero, let us try to make them Ciceronian, by reading "aliud quidquam" for "aliquid." I suspect that this little bit of bad Latin found its way here through some transcriber's "compendia scripturae." With regard to the Latin of Tacitus, although he was a brave, good man, one would have to treat it like an advanced schoolboy's theme, if Cicero's Latin is the Latin which you select to regard as Latin.

It would be hardly fair not to notice one of the funny parts of this speech. I am sure there was a burst of laughter in court. One of the judges whom Staienus made overtures to in favour of Oppianicus in the first trial was called by name Bulbus, which word also meant "onion." Another was called Gutta, which word, written small, means a "drop," or "drops," of some easily flowing liquid, like vinegar. (Stilla is a *thick* drop.) Cicero says, chapter 26, §71: "Itaque, ut erat semper preposterus atque perversus, initium facit a Bulbo." W. R.'s note about *preposterus* is very good: "If a dog were to come into a room tail foremost, this would be described by the epithet 'preposterus.'" That is exactly right. To begin a dinner with things that only excite the appetite for drink is to act like a dog who comes into a room with his posteriora priora. "A Bulbo" comes in where you were expecting "ab ovo"—that strange mixture of mead, salt fish, and eggs, which the Romans took as their *promulsis* or *ante-pasto* of a dinner, to excite the appetite for eating: so some ill-advised persons now take gin and bitters. Cicero brought down the house, "rupit subsellia," with this won-

derful joke. The judges had hardly time to recover themselves before he convulsed them again with "atque etiam ipse conditor totius negotii Guttam aspergit huic Bulbo:" "and so the dresser of this nice little salad christened Mr. Onion with Mr. Cruet."

There are not many passages of this speech where I think it is pure in places where it has been assailed. There is one in chapter 12, §34, p. 72, "ut illum Magium intelligatis longe animo prospexisse morientem." The meaning is, "so that you may perceive that he, Magius, saw far into the future in his last moments," that is, saw how much danger would arise from Oppianicus.

In chapter 59, §163, p. 129, "deinde aliquando cum servi Habito furti egit: nuper ab isto Habito petere coepit," it is surprising that Ramsay did not demur to "isto." There is no way of vindicating "isto." "Ipso" is properly read in Nobbe's text. I had made the correction before I observed it there. I only record this change for the benefit of the editor of the fourth edition of Ramsay's Cluentius.

On p. 134, line 4, Cicero says: "hic quum esset illo tempore puer" of the younger Oppianicus, even after his father's death. This is calculated to mislead, and Cicero wished to mislead. I see no reason to suppose that the three direct charges of poisoning alleged against Cluentius are not arranged in order of time, as would be most obvious. In that case, Oppianicus junior was married before his father's death. Of course he might have been married, and made a will, before he was seventeen. But "puer," in Cicero's sentence quoted above, when stripped of misrepresentation, will mean that he was still like a child, although "adolescens," and fit to be called "juvenis," under the tutelage and strict authority of his mother: he was an example of Hor. Ep. I. 1, 22, "pupillis, quos dura premit custodia matrum." That mother was the lovely *diabliesse* who, by the force of her charms, and by her

shocking irregularity of conduct, had caused all this trouble from the beginning. Her name was Sassia.

The "puer" might be said in the way that Octavian was called *puer* at the age of nineteen, or Scipio Africanus at the age of twenty; or as Horace uses the word in *Od.* I. 9, 16, "*nec dulces amores, sperne puer, neque tu choreas,*" &c.

These remarks are really not necessary, except to guard the reader against Cicero's misrepresentations. Young Oppianicus could marry as soon as was desirable after he arrived at "pubertas," which was supposed to be about the fourteenth year of a boy's age.

The fact that "*Hujus Staieni persona,*" chapter 29, §78, p. 91, has been appealed to as an example of "*persona*" used in the sense of "person," makes it excusable to add a few words. Of course Ramsay is right in indicating that the words mean, "This part that the fellow Staienus used to play," &c. When Salmasius said that the execution of Charles the First was a "*parricidium*" committed by the people of England "*in persona regis,*" I do not see how he could have expressed himself better in Latin. He was obliged to use medieval Latin, because he had to use "*rex,*" that awfully bad Latin word, in a good signification. I wish Milton would have told us what Salmasius ought to have said. Very likely, if he had been in Salmasius' place, he would have used exactly the same words. I think I am not wrong in saying that Milton committed a much more atrocious fault when he said that Salmasius ought to be flogged, "*vapulandus,*" for his bad Latinity. Here appeareth Nemesis, as Johnson says, with a vengeance. You cannot make a personal passive participle out of an intransitive verb. I think that Ramsay ought to have put this frightful example of bad Latin again before the student's observation. It would seem that our good Latin scholar and versifier, Milton, got flogged by a better

Latin scholar, Salmasius ; or shall we say that Milton was also using a medieval Latin word, "vapulare, to flog," since "vapular" is a Spanish word for "to flog?"

One word in conclusion about Sassia. She is the lady who caused all this pother and to-do ; she is the "she" who made all this work for the lawyers, all that money for the *testes* and *laudatores*, and for the world's grandest pleader, Marcus Tullius Cicero, the Praetor. He goes wild with a methodical madness whenever it is the right time to think of her in court. "The monster ! the prodigy of iniquity ! the wife of her son-in-law ! the guilty rival of her daughter ! that stepmother of the son of her womb !" I think we may very safely put Sassia under the category of unscrupulous females, along with Lucretia Borgia, the Marchioness Brinvilliers, Elizabeth and Sophia Bathory, and so many more, near and remote ; remote as Clytemnestra, near as the time of the Tudors, and nearer. There are some about whom the jury of historians cannot as yet conveniently profess to be agreed. *Κύριον μένει τέλος*. "An appointed end abides."

Some weeks after this criticism in the above form had been given to the Editors of *Hermathena*, an article on Cicero's speech for Cluentius, entitled, "Society in Italy in the last days of the Roman Republic," appeared in "Fraser's Magazine" (August, 1876), with the signature "J. A. F." There is so little resemblance of any kind between that article and my own, that it would be quite unnecessary to disown any indebtedness to the former, even if the date of my essay had been later. The two articles are written each with a different design. One has in view the correction of the text, and the explanation of every difficulty which can be found in the speech. The other gives an *exposé* of some forms of human conduct in

the time of Cluentius, drawn from the data afforded by the easy parts of the speech.

I have found nothing to correct, alter, qualify, or remodel in what I had said, and nothing has been changed out of regard to J. A. F.'s article. It has seemed desirable, however, that I should point out some faults in the "Fraser," and some misstatements of fact, which appear on the surface. I cannot at present concern myself with anything which is not very salient.

J. A. F.'s article appears to me to be an unfavourable specimen of what "the science of history," as he calls it, can produce; and I fear that I have degraded criticism by calling it, in the cant of the day, a science. I beg pardon. It is simply the close study of words and their meaning, with a view to making some texts pure from which history-writers must derive their facts for analysis and arrangement. Familiar as I have been this long time with the recorded incidents that have to do with this celebrated case of Oppianicus junior *v.* Cluentius, I found J. A. F.'s narrative of them to produce a very distressing sense of confusion worse confounded. He also, like W. R., has not told the story prettily. Now that J. A. F. has failed, I would very respectfully suggest that George Eliot should make the experiment. The story contains in profusion all the elements of an exciting novel of the first order.

There is one respect in which I do not sympathise with J. A. F.'s tone of remark. It does not seem to me to savour of much philosophic equipoise and fair balance of mind in observation, to set forth any particular epoch for detestation in Juvenalian groans. The lines which make up the long zigzag of human conduct, from the beginning of the world to the present time, and which will go on in the same fashion to the world's end, are really not very long. Men soon found out every possible freak by which natural laws can be outraged, man's health damaged, and

social life made uncomfortable. There is no need for any-one to be horrified or to go into hysterics because Staienus was venal, Oppianicus a poisoner, Cicero a superb pleader, and Sassia a not very praiseworthy dame. There have been in time past a million and more of bribers, bribees, poisoners, liars, and unscrupulous females. There are more than enough now. There will be a million and more in time to come. The philosopher's business is calmly to observe, and, if he thinks it worth while, calmly to record. The record will not be without a certain very benevolent use. It will console remote posterity with the certain knowledge that they are no worse than their predecessors. There *were* bad Romans: there *are* bad English people; in each case, of both sexes. Sassia, Oppianicus, Cluentius, Strato, Scamander, Staienus, have all their copies and counterparts, not very far from the city of London, at this moment. Only Cicero has no like nor second.

That is, perhaps, but a small weakness in "Fraser's" contributor. There is a greater one which underlies the whole article. J. A. F. assumes as true, and devoutly swallows, everything that Cicero says. Cicero, for his part, openly declared, after the case was won, that he was only *pleading*; and we all know what that means. It is because Cicero was *pleading*, that, as J. A. F. deplores with a most touching pathos, "there is no connexion in the events. There is no order of time. We are hurried from date to date, from place to place. The same person is described under different names; the same incident in different words. The result is a mass of threads so knotted, twisted, and entangled, that only patient labour can sort them out into intelligible arrangement." *L. c.*

That is exactly the effect that Cicero wished to create. He took good care that none of those fine things that J. A. F. fails to find should have a place in his speech. He meant to talk the jury into such a state of mind that if

any one of them, J. A. F. for instance, was not carried away by hidden fallacies and well-measured declamation, he might at least vote *non liquet*. J. A. F., though sorely puzzled, acquits the arch-briber Cluentius: "it may be hoped," he says, "that he was acquitted," p. 162. That is quite natural. Cicero has polled J. A. F. He has not polled me, Cicero's humble admirer, because I am only a jurymen in so far as I am on my oath to give a verdict after ever so many years' study, "*e mei animi sententia, et ita teneri, si sciens fallam; quod inscientia multa versetur in vita:*" Cic. Acad. Priora, 47. The rest of that passage is very admirable. It says that according to the old Roman rules, a sworn witness might only depose to a thing that he had actually seen, by saying that he submitted, *arbitrari*, that it was so; and that when sworn jurymen had made themselves perfectly well acquainted, *cognovissent*, with certain transactions, they should return a verdict, not that the facts were so and so, but that they seemed to be, *videri*. J. A. F. is quite wrong in saying that the speech for Cluentius "is not a favourable specimen of Cicero's oratorical power." It is, as Niebuhr pointed out, the very finest specimen. It was simply impossible for impartial jurymen, who listened to it, not to vote in a large majority for acquittal, when they had only the one day in which to make up their minds. This speech is a magnificent manifestation of the omnipotent efficacy of Ciceronian rhetoric. The force of pleading can no farther go. 'If I could follow J. A. F. in his feeling of satisfaction at the immunity from punishment and the Ciceronian canonisation of great criminals like Cluentius, I would then recommend pleaders of the present day to take a lesson from Cicero, instead of going on to make, as they usually do, one ridiculous splash into a wild ocean of babble, from beginning to end of their performances.

Cicero's boast, that he threw dust into the eyes of the

jurymen in the trial of Cluentius, makes it quite clear that Cluentius was acquitted by a large majority: otherwise Cicero's boast would have no meaning. J. A. F. wrongly says, p. 152, "how the trial ended is unknown."

The "large majority," on the other hand, by which J. A. F. says "Fraser," p. 159) that Oppianicus senior was ~~condemned~~, consisted of only *two* out of thirty-two judges. Seventeen gave a verdict of *guilty*; ten of *non liquet*; five gave votes for acquittal.

Another glaring misstatement is asserted twice: "finally Cluentius himself was brought to trial" ("Fraser," p. 160), that is, for bribery; and (*ib.* p. 161), "having escaped the prosecution for the bribery of the judges." Cluentius was never brought to trial for bribery; he was never directly charged with it. How could he be? There was no law under which he could be arraigned.

On p. 158, "Fraser," we find the following sentence, which appears to me to be very misleading: "the judges were now exclusively patricians, the purest blood of which Rome had to boast" (*sic*). This unwise mode of talking is echoed by a writer in *The Academy* who says, "J. A. F. thinks . . . that the senatorian judges under Sulla's constitution were all pure patricians; it is doubtful whether half of them were even noble." It is very easy to upset these queer notions about "exclusively patricians," "purest blood of which Rome had to boast," and "noble."

A patrician by long descent was not "noble" unless he or his family had won state-office of some kind. A plebeian was "noble" as soon as he had, by dint of eloquence, soldiership, intrigue, or bribery, won some state-office. "Nobilis" means "Right Honourable." Plebeian senators and plebeian "nobles," begin at least as early as Spurius Maelius, 430 B.C. The senators under Sulla's constitution were every one of them "noble" as a matter of

course; but, in the name of patience, what do you pretend to mean by a "pure patrician"? Is it a man, in the time of Sulla, whose paternal and maternal ancestors had all been patrician for twenty generations, before and after the Decemvirate, and all along since the Canuleian Law of 445 B.C.? One must be very credulous, indeed, to think that there were any *pure* patricians in the time of Sulla. "Patrician" was now a term of romance. It is possible that some few coxcombs called themselves patricians by the father's side. You cannot presume any farther.

What sort of men, then, did Sulla's senatorian order consist of? There were, first the five or six hundred enrolled senators, who gave votes in the senate, and were selected from the lot by the censors. Then there were some hundreds of others who had been passed over by the censors; who nevertheless sat in the meetings of the senate, when they chose, and gave a moral vote. There was no property qualification. The indispensable qualification for being both of the senatorian order and "noble" may be generally, and, I believe, very truly, inferred from the terms of a Lex Servilia, passed in the year 104 B. C. The object of this law was to exclude the senatorian order totally from the juries which tried cases of money received or taken illegally. "It excluded from the function of judices every person who had been tribunus plebis, quaestor [there was no need to name any higher magistrate, J. F. D.], triumvir capitalis, tribunus militum in one of the first four legions, triumvir agris dandis assignandis, who was or had been in the senate, and every father, brother, or son of a person who was, or had been, in the senate."—George Long, in Dr. Smith's Dict. of Gr. and Lat. Ant. These are all items which seem to be aimed at the senatorian order of the day. Some other items in the law are inserted for propriety's sake, or from prescription.

What shall we say of the superlative blueness of blood

of which that noble senator Caius Staienus could boast? Cicero boldly calls him in court "a vile swindler, who lived in a miserable hole of a house in the most disreputable part of Rome." Bulbus and Gutta were both noble senators. Caius Marius was a noble senator; and so was the great Tully himself, who derides the notion of claiming descent "a M. Tullio qui patricius consul anno decimo post reges exactos fuit."—Cic. Brutus, c. 16.

I am myself a great admirer of good patricians, and of purity of blood in every sense of the phrase; but not to the extent of being willing to talk nonsense about them. One thing is quite certain, namely, that we must hold fast to our criticism of words.

J. F. DAVIES.

NOTES ON TACITUS, ANNALES, Book XI.

I.

CH. 27.

Haud sum ignarus fabulosum visum iri, tantum ullis mortalium securitatis fuisse, in civitate omnium gnara et nihil reticente, nedum consulem designatum cum uxore principis, praedicta die, adhibitis qui obsignarent, velut suscipiendorum liberorum causa convenisse; atque illam audisse auspicum verba, † subisse, sacrificasse apud deos; discubitu inter convivas; oscula, complexus; noctem denique actam licentia coniugali.

IN this passage the difficulty of *subisse* is well known. The most obvious explanation is to regard it as used absolutely for 'subisse limen, fores,' technically said of the entry of the bride into the house of the bridegroom: *cf.* Catullus, lxi. 156 :

*Transfer omine cum bono
Limen aureolos pedes
Rasilemque subi forem.*

Plautus, *Cas.* iv. 4, 1 :

*I, sensim superattolle limen pedes, nova nupta, sospes
Iter incipe hoc.*

But it would appear from Juvenal (the only one of our authorities who mentions the scene of this extraordinary occurrence) that, contrary to the usual custom, the bride, Messalina, awaited the coming of the bridegroom in one of her own villas in the Horti (Luculliani), and that it was there that the nuptials were celebrated: *cf.* Juv. x. 334 :

*dudum sedet illa parato
Flammeolo Tyriusque palam genialis in hortis
Sternitur.*

In this case there could have been no "deductio" or "bringing home of the bride," and consequently 'subisse = limen subisse' would have no place in the account. But even supposing that Juvenal was in error, and that Messalina was, according to usual custom, "brought home" to the house of Silius, even then there is a difficulty in taking subisse = "passed the threshold," because it would appear that the portion of the ceremony at which the Auspices assisted took place *in the house of the bridegroom* (*vide* Becker's Gallus, p. 163). Consequently 'subisse' should stand before the words "atque illam audisse Auspicum verba." Moreover, the whole form of the sentence from "praedicta die" is in favour of the supposition that all the circumstances described took place in the same locality.

Another explanation of 'subisse' worth noticing is that of Gronovius, who regarded it as the correlative word to *praeivisse* in the phrase *praeire verba*.¹ The Auspices dictated a form of prayer which the bride repeated after them (*subiit*). But (1) 'subire' would be ἀπαξ λεγόμενον in this sense; and (2) although from our passage Becker (p. 163) concludes that "the Auspices had certain forms of words to pronounce," still we have no authority for any such practice as Gronovius assumes. From Suetonius, Claud. 26, it seems that the Auspices effected the *dotis constitutio* (*dote inter Auspices consignata*); it is probable also that the word "Feliciter" (Juv. ii. 119,

Signatae tabulae, dictum Feliciter, ingens

Cena sedet, gremio iacuit nova nupta mariti),

was a conventional utterance of the Auspices, wishing the newly married couple "good luck."

¹ "Subire verba dicitur, cui dictat pia verba sacerdos, cuius preces praeit. Sermo non indignus Cornelio, respondens τῇ praeire verba. Ominata verba, quae praeivit auspex, subivit Messalina,

i.e., repetivit, in ea verba ivit. Quae insolentia hic esse potest, tollitur vulgari praeire verba." (Gronovius, Ob-servv. 2, 4, pp. 187, sq., quoted by Boetticher, Lex. Taciteum, sub verb.)

As, then, the attempts to explain 'subisse' appear unsatisfactory, we must either conclude that this is one of the passages where our knowledge of the Latin language fails us, or that 'subisse' is corrupt. What, in this case, is the word that lies hidden beneath the corruption? Certainly not *nupsisse* (Lipsius)—a word embracing the entire ceremony would not be inserted in the middle of the details of that ceremony—nor *suffisse* (Orelli), a mere anticipation of 'sacrificasse apud deos.' The conjectures of Ritter (*domum subisse*) and Halm (*subisse aedes*), which give 'subire' the technical sense 'limen s.,' are, as we saw, useless.

Could it be possible that the right word is SUBSCRIPSISSE, *i. e.*, Messalina (and of course Silius also) subscribed her name to the tabulae dotales? This would be an important point to mention, as the signatures of the contracting parties would furnish the strongest documentary evidence of the reality of the marriage. As it is clear from Suetonius, quoted above (*dote inter Auspices consignata*), that this part of the ceremony took place under the immediate superintendence of the Auspices, SUBSCRIPSISSE appears to come in appropriately after "atque illam audisse Auspicum verba." The corruption SUBISSE would arise from the contracted form SUBSCRIPSE.

II.

CH. 28.

Igitur domus principis inhorruerat, maximeque quos penes potentia et, si res verteretur, formido, non iam secretis conloquiis sed aperte fremere, dum histrio cubiculum principis † exultabero dedecus quidem inlatum, sed excidium procul afuisse: nunc iuvenem nobilem dignitate formae, vi mentis, ac propinquo consulatu maiorem ad spem adcingi.

'Exultabero,' the reading of the Medicean MS., has long exercised the ingenuity of editors, who seem generally to agree in supposing that the third person perfect conjunctive of some verb is concealed in the corrupt word.

Thus we have *insultaverit* (Bipontini, adopted by Baier in his edition of Orelli's Tacitus, Orelli himself having conjectured *expugnaverit* = *quasi vi illicita occupavit*); *dum histrio* (in) *cubiculo principis* (*tanquam in scena*) *exsultaverit* (Ernesti); Halm suggests *adulteravit*, or *exadulteravit*; *vitiaverit*, too, has been conjectured.

Gronovius, reading *exsultaverit*, ingeniously explained it as an attempt on the part of Tacitus to translate the Greek word *ἐξορχεῖσθαι* in the sense "to dance out, i. e., let out, betray," and, generally, "to profane," a sense in which *ἐξορχεῖσθαι* is found in Lucian: *Τὸς ἐξαγορεύοντας τὰ μυστήρια ἐξορχεῖσθαι λέγουσιν οἱ πολλοί* (*De Saltatione*, 15), and Plutarch (*cf.* Suidas, *ἐξορχεῖσθαι καταπαλῆναι, ἐκφουλίζειν, ἐκπυστον ποιεῖν*); and recognised in the word an allusion to the profession of Mnester, "egregie de homine scenico." This explanation is adopted by Mr. Frost in his edition of the *Annales*, but, strangely enough, without any acknowledgment of the source. Admitting the great ingenuity of the suggestion of Gronovius, we may, however, doubt whether Tacitus would have tried such an experiment in language as the literal translation of *ἐξορχεῖσθαι* by *exsultare*. Tacitus, it is true, does not hesitate to use *Latin* words in very unusual and peculiar senses and constructions; still a direct translation of a *Greek* word would probably be unique.* We might also urge that, if Tacitus had introduced such a term, it is strange that it was not borrowed by other writers in an age when bizarreries were admired and sought after. The word, however, is nowhere else found in such a sense. Ritter's explanation of *exsultaverit* is less far-fetched than that of Gronovius: "*Saltando sibi conciliare sive expugnare. Quippe 'ex' praepositio effectum denotat.*" (So *Eblandiri*,

* *Immunire* (Ann. xi. 19) may perhaps be intended to represent *ἐντειλεῖν*, but more probably is formed on

the analogy of *inaedificare* and similar verbs.

list. iii. 37: *nec defuit qui unum consulatus diem . . . blandiretur*). But there is no authority for such a sense of *xsultare*. If *exsultaverit* must be read, I would prefer to take 'cubiculum' as a kind of cognate accusative, and *exsultaverit* = *iactaverit*, "boasted of his intrigue with the Empress."

But there is an objection which applies to all the above-mentioned conjectures, namely, the improbability of ERIT being mistaken for or altered into -ERO. Perhaps, then, it might be allowable to suggest that -ERO represents the remains of an ablative termination -ERIO (in xi. 26, M. has *adulterorum* where *adulteriorum* is almost certainly right); that a verb is concealed in the earlier part of the corrupt word, and that the passage originally stood—*dum iustrio cubiculum principis VEXET ADULTERIO*. The tense of *vexet* need present no difficulty, and the word itself seems well adapted to express the *irritation* produced at the court of Claudius by the intrigues of the comparatively insignificant Mnester, as contrasted with the profound alarm (*domus principis inhorruerat*) felt at the machinations of a powerful noble like Silius.

III.

CH. 23.

Quid si memoria eorum moreretur [*oreretur*, Bachius] † qui Capitolio et ara [*arce*, Acidalius] romana manibus eorundem per se satis?

In this "locus conclamatus," of all the proposed emendations, Madvig's (*Adversaria Critica*, vol. ii.) seems the most satisfactory: "Qui Capitolio et arce Romana MANIBUS DEORUM DEPULSI SINT." Perhaps, however, DEPULSATI might be suggested instead of DEPULSI, to account for the corruption "satis." The frequentative sense need not be pressed.

T. J. B. BRADY.

GREEK AND LATIN ETYMOLOGY IN ENGLAND.

II.

IN a paper bearing the same title as the present, and printed in Part ii.¹ of "Hermathena," I called the attention of teachers and students of Greek and Latin to the importance of using for the elucidation of the structure of those languages the results arrived at by Comparative Philology. This was no novel topic: it had been often insisted on before; but the lesson appeared to be still urgently needed in England. It was shown from an examination of works enjoying high reputation and in general use for purposes of instruction, that the precept had as yet very imperfectly operated on practice. It was proved that the old lax and haphazard modes of proceeding in Etymology—which were unavoidable, and therefore excusable, before the rise of the scientific study of language—still largely prevailed; that the established laws of Indo-European Phonology were habitually ignored; and that, even when the new principles were recognised, they were too often not thoroughly appreciated or uniformly applied.

In illustrating the prevailing errors both of method and of doctrine, it was impossible for me to pass over the writings of Mr. Paley, who has probably done more than any one else since Donaldson to give a wrong bent in this matter to the minds of our rising students. I felt bound to state publicly what I had long felt, both as a learner and a teacher, as to the evil influence exercised by this distinguished scholar in popularizing amongst his youthful

¹ Vol. i., p. 407.

readers wrong modes of proceeding and false results in Etymology.

Mr. Paley has contributed to the present Number of "Hermathena" a Reply to my strictures. It was but just that he should be heard in his own defence; and a place was gladly made in pages commonly devoted to the products of Dublin scholarship, for the contribution of so eminent a member of another University.

My acknowledgments are due to Mr. Paley for the spirit in which he has received my criticisms.² He has seen that I was actuated by no personal motive, but wrote with a single eye to what I believed to be the interests of sound learning; and that my condemnation of his Etymology was quite compatible with sincere respect for himself, and gratitude for the services which in other fields he has rendered to Classical Literature.

I have no intention of discussing over again the particular examples which I quoted from Mr. Paley as evidence of his Etymological unsoundness.³ I believe that on no one point which he has sought to defend, his comments

² There are only two points, I think, on which he has misconceived my meaning. I have not referred, as he supposes, *raven* and *gruff* to the root *ru*. I have said nothing on the etymology of either word. Again, I have not denied a connexion between Gr. *γράφω* and our verb to *grave*, *en-grave*; such connexion undoubtedly exists. I may take this opportunity of requesting the reader to correct a place in my former article, p. 414, where *πλεόμω* is inadvertently given as an instance of the substitution of *ν* for *λ*, instead of *λ* for *ν*. In p. 422, line 5, "derived from" ought to be "connected with." These corrections do not affect any question between Mr. Paley and myself.

³ My examples are taken from his edition of Homer, because in that work he etymologizes more frequently than elsewhere. But I might have quoted from his other writings many equally erroneous accounts of the origin and affinities of words. If, for example, I turn over his Hesiod, I am compelled often to dissent from him, and, as I think, for conclusive reasons, on questions of this kind. Thus, I have to deny that *ἡμί* is for *φημί* (Pref., xxxvii); that *silva* = *φόλη* [instead of *σώλη*] (ib. xxxviii); that the primitive Greek form corresponding to Lat. *ver* was *ῥα* [instead of *ῥεσῶ*] (ib. xl); that Lat. *hornus* = Gr. *ῥινός* (ib.); that *χῶς*, *capio*, and *cavus* are cognate (on Th.

have set aside my objections. Those objections are on record, and, with his replies, remain accessible to anyone who will take the trouble of examining their comparative weight.

About individual words Mr. Paley and I might debate very long without exhausting the matter of contention. Differing as we do on fundamental principles, we must of course constantly be at variance on particular questions which involve those principles. If our controversy were continued, every rejoinder of Mr. Paley's must bring out a new series of divergences between us. His Reply in the present Number of "Hermathena" contains a number of fresh assertions respecting the affinities of words which I am obliged to dispute.

I deny, on Phonological grounds, that *μορφή* and *forma* are radically the same; that *ἀμφι-λαφής* is connected with *ἀπο-λαύω*; that *ἑώς* = *φάος*; that *κύσαι* = Engl. *kiss* (Mr. Paley, from his quoting the aorist, seems to forget that the *σ* in *κύσαι* is formative, not radical); that Engl. *she* is derived from (instead of having been substituted for) the Anglo-Saxon *heo*. Nor can I admit that *ἄελλα* (which is plainly from the root *ἄF*, to blow; cf. *θύ-ελλα*) is connected with *ἀολλής*, which goes with *εἶλω*, root *Fελ*; or that Lat. *pa-sco* may = *πα-sco* (the root being plainly *pa* (Skt. *pā*), of which *πατ-έομαι* is a "weiterbildung"), or has anything to do with *παίω*, Lat. *pau-iv*. I should like, too, to see the evidence on which Mr. Paley relies, to show that English *better* had once the form *belter*.

Much more important than the discussion of individual

116); that the root of Lat. *levare* is *λεφ* or *λεF* (on Th. 330) [the truth being that *lev-is* = *leg-v-is*]; that the root of *ἔδων*, or *ἔδω*, in the phrase *δωτῆρες ἔδων*, is possibly identical with Lat. *res* (!) (on Th. 633); that from *φιλήτης* = *φηλήτης* came Lat. *pilare*, to pillage, and

possibly the French *filou* (on E. 375); and that Gr. *ἡχῆ* perhaps = English 'squeak' (Pref. xxxvi). This catalogue from Mr. Paley's Hesiod might be largely increased, and similar ones formed from his other books.

words, and what indeed gives to this its chief interest, is the study of fundamental principles of Etymology. And whenever Mr. Paley, in his Reply, enunciates general propositions, or propositions implying general views, he seems to be almost without exception wrong.

I cannot, of course, consider all his statements of this kind at length, but here are a few queries to indicate criticisms which would admit of being fully developed :—If the sound of **F** was so strong as Mr. Paley supposes,⁴ how did it come to vanish out of Greek altogether, and comparatively so early? Can it have had at the same time the sound of *sw* or *wh*, and also a sound not far from that of the English *f*?⁵ A **F** was, no doubt, pretty often preceded by a *σ*; but why should the two elements occasionally united in **σF** be welded into a permanent unity any more than **σσ** or **στ**? What is meant by the assertion that “*bh* is virtually *hw*?” Is *bh*, then, also a “sibilant (or guttural) spirant”? How can Mr. Paley say that English *fine* and *vine* are “virtually identical” in sound (Mr. Ellis or Mr. Sweet would stare at the assertion)? Does he really believe that *sh* in the English *she* is a compound sound, like *sw*? In studying Etymologies, is every *φ* to be replaced by a **F**, as Mr. Paley seems to imply? Is *φέρω*, *ex. gr.*, to be treated as having once been **Fέρω**? There are difficulties, no doubt, connected with some parts of the verb *είκω*; but why indulge in elaborate dissertations on **F** to explain **Fείκοι**, when it is plainly in the same relation to **Fείκω** as *λέλοιπα* to *λείπω* and why suppose the lengthening of **Fικ** to **Fεικ** to be due to the influence of **F**, when that of *λειπ* to *λειπ* is precisely similar? Will Mr. Paley seriously maintain that the omis-

⁴ He here denies that it has the feeble sound of English *w*. Yet in his Pref. to Hesiod, xxxiii, he says, “The *F* of Hesiod and Homer had rather the power of *w* than of *v*.”

⁵ Yet in his Pref. to Hesiod, xxxvi, he says: “So far was the *F* from resembling the modern or perhaps the Latin *F*, that,” &c.

sion of significant elements of Latin words in the transition to their French forms, in accordance with well-known laws, will justify the assumption of similar omission within the limits of the Greek language, so as to make possible the derivation of 'Εννῶ through a supposed 'Εναλῶ (for 'Ενφαλῶ) from ἀλλεσθαι?

The ultimate and really vital question, in this as in most other departments of inquiry, is that of method. Mr. Paley tells us that he has a method, but after a careful examination of his Reply, I cannot find what he professes it to be, unless it be the method of always presuming Donaldson to be right. "By far the greater part of what I have stated," he says, "will be found to be justified by his [Donaldson's] views, if not taken directly from him." Oddly enough, while Mr. Paley makes this defence, he adds that it is partly because his suggestions are *new* that they have been judged to be baseless. I do not understand how any proposition can be "justified" by quoting Donaldson in support of it, especially against those who dispute his general doctrines no less than his particular results. Nor do I allow that Mr. Paley can get rid of the responsibility for filling the minds of students with Etymological error—for leading them, *ex. gr.*, to believe that φῶς and ἥρως are connected—by saying that in referring these words to the common root *Faṛ*, or in any other outrage on Phonology, he has "simply followed Donaldson". What he quotes without expressing dissent he must be taken either to adopt as his own, or, at least, to put forward as admissible.

But when I challenged Mr. Paley's method, the question I meant to press was, not—What authority does he follow, but—Does he recognise any Phonological laws? Are there laws of letter- (or, more properly, of sound-) change which must guide us in studying the affinities of words? And, if so, what are they? To this I do not see

that he gives any answer at all. If, whilst admitting the existence of Phonetic laws, he wishes really to defend his position, he must tell us what he conceives those laws to be; he must furnish us with a scheme of the Greek and Latin sounds regularly corresponding to primitive Indo-European ones, and establish its correctness by an adequate induction. This is what the scientific Etymologists have done, and their work must stand till it has been set aside. It is absurd to write on Etymology now-a-days, and ignore what has been done by Bopp, Schleicher, Curtius, and others. There is no middle course: either disprove the laws of correspondence they profess to have established, or accept and conform to those laws. This is a hard saying; it is so much easier to throw off more or less plausible conjectures founded on a certain similarity of sound and sense, than to work under the constraint of Phonological laws. Results can be much more rapidly evolved by ingenious guessing than by the timid and creeping processes of scientific Etymology. But the discipline must be enforced; to Mr. Paley, as to all other revolters, we must address the challenge; and, if they are unable to meet it, we must call on them for submission and conformity.

But the truth peeps through only too clearly in Mr. Paley's Reply that he does not really believe in Etymological laws. "If some principles *seem*⁶ certain"—"it is a matter of opinion or speculation"—"a subject which seems so largely conjectural." These phrases have an element of truth, but the truth they contain must not be exaggerated or misapplied. There are in this, as in every branch of inductive research, three distinguishable regions, which might be figured by areas of concentric circles: an inner region of ascertained fact; a second larger region of the unascertained, where more or less probable opinion has its home; a third—largest of all, on which clouds and

⁶ The italics are mine.

darkness still rest, and over a great part of which they will probably rest for ever. But the uncertainty which hangs over the second, or the obscurity which envelops the third, affords no reason why we should refuse to acknowledge and utilize the light which has been shed upon the first. There are many things in Etymology which are not at all matters of speculation; and, unless the whole study is to remain an unordered chaos, these established truths must be once for all recognised and systematically brought to bear.

For Phonological laws I do not wish to make any demand which their real nature will not justify. They are empirical generalizations, formulating rather predominating tendencies than absolute uniformities. We observe variations in some cases, just as in animal and vegetable forms, from the prevailing and normal types. But these sporadic deviations do not nullify the primary and preponderating fact, which must always have weight in our conclusions. The general law is to be first of all ascertained and insisted on; the exceptions are then to find their subordinate place. Some of them can be reconciled to the law by showing the operation of special agencies in their production; others must be left unexplained—we must only admit and tabulate them. What is called Grimm's Law, for example, beyond all question, regulates in the main the correspondences of the mutes in Sanskrit (Greek, or Latin), in Gothic, and in Old High German. But there are numerous exceptions, some of which have been satisfactorily accounted for by Grassmann and others; some remain, and may always remain, without explanation. The scientific Etymologist must adhere to the law as far as it is possible to do so without outraging probabilities founded on other considerations; and when he is forced to acknowledge an exception, must treat it *as an exception*, not use it to authorize either neglect or violation of

the law. Mr. Paley may, consistently with Etymological orthodoxy, connect *καλεῖν* with *to call* (though there is good reason for denying the words to be cognate); but neither he nor anyone else should affirm the relation, without admitting that it is more or less doubtful on account of the absence of a regular letter-change—above all, should not employ it for the purpose of showing that Grimm's Law may in general be safely ignored.

Of what I have said respecting Dr. Donaldson on the side of Comparative Philology, I retract nothing. I value those of his works—such as, for example, his edition of Pindar—in which he dealt with matters which he really understood. But I can never cease to hold, that in the ways I have indicated he inflicted grave, though happily not irremediable, injury on the study of Comparative Philology in England. The time is come to dismiss finally the “New Cratylus” from the position of an authority, to which it never was entitled; though, from the ignorance of the new Science of Language which too long prevailed amongst us, it obtained at first an unmerited credit. It is radically vicious in principle, and swarms with errors of detail. Every student of the subject should be counselled to avoid it. The book which ought to be the habitual guide of both teacher and learner in Greek Etymology (I do not here speak of the doctrine of inflections) is the “Grundzüge” of Curtius, in every way a real masterpiece in its kind. By furthering the study of that great work in our Universities, we shall use, as I believe, by far the most efficacious means at our command for promoting the progress of sane and scientific Etymology in this country.

In prosecution of the undertaking on which I entered in my former paper, I proceed to subject to examination the Etymological matter in a book well known to most

persons interested in classical studies—I mean Dr. Hayman's edition of the *Odyssey*.

This work⁷ is in some respects entitled to high praise. The Prolegomena and several of the appendices contain much that is excellent, and prove that the author has a real genius for certain kinds of critical inquiry. But his Etymology is often nearly as fanciful and arbitrary as Mr. Paley's, and as much at variance with established principles of Phonology. Buttmann, indeed, whose "*Lexilogus*" he has read with care, sometimes keeps him right; but he is a good deal under the disastrous influence of Donaldson, and, though he cites amongst his authorities the "*Grundzüge*" of Curtius, there is little evidence in his book of that work having been seriously studied, or of its doctrines having been thoroughly mastered and appropriated.

Let me justify these remarks by pointing out some of Dr. Hayman's more serious errors. He makes (App. A. 16) ἀκήν cognate to *taceo*, ἔρα to *terra*, and *traho* to ῥύω, ἐρύω, none of which statements can be defended, initial *t* never being added in Latin or lost in Greek.⁸ Μόρος he makes (App. C. 8) = Lat. *mors*, with which it has no connexion, belonging, as it really does, to μερ, μείρομαι, whilst the Latin word goes with Gr. βροτός. ὕδωρ he makes (on δ, 404) = Lat. *sudor*, which really goes with (σφ)ιδίω, Engl. *sweat*, while ὕδωρ is to be joined with *water*. He confounds (App. A. 19) the roots of νέεσθαι (νεε, I. E. *nas*), of νέω, to swim (νυ, I. E. *snu*), and of νέω, to spin (νε, I. E. *na* or *sna*). He makes (ib.) κνάλω = Lat. *scabo*, against all Phonological law; the latter is, without doubt, connected with Gr. σκάπτω, the media replacing the tenuis. He represents (App. A. 6) the

⁷ The first vol. (bks. 1-6) appeared in 1866; the second (bks. 7-12) in 1873. The remainder is still unpublished.

⁸ The loss of *t* in Lat. *latus* (= *latus*), to which he refers, proves nothing; it is due to the phonetic law which makes initial *tl* impossible in Latin.

δ in ῥάδιος as radical: as well might the δ in ἀίδιος be so considered. The θ in ἴθμα he makes (on ζ, 264) to be of the same nature with the θ of the imperative ἴθι, in which θι is really the characteristic of the second person singular. Χάος he connects (App. A. 6) with Gr. χαδ, the root of χανδάνω (Lat. *pre-hendo*, Engl. *get*); it plainly belongs to χα (χαίνω, *hio*). The proper name *Pholoe* he makes = Φολοή (App. A. 3), identifying F with original *dh*, which is one of the worst of Donaldson's heresies. *Sat* in *satis* he makes (App. A. 6) = *fat* in *fatigo*, and does not see that *ad* in *adfatim* is the preposition. Θάλασσα he makes (App. B.) to contain "an iteration of the sound of ἄλς, quasi σάλασσα"; but though in *Laconian* σ sometimes took the place of θ (θεός, σιός), how can the substitution of θ for σ be justified? The word is without doubt related to παράσσω, θράσσω. He makes (on β, 162) εἶρω, to speak, "= *Fέρω*, or lengthened *Fέρρω*, Lat. *sero*, as in Virg. Aen. vi. 160, *sermone serebant*," thus confounding the root *Fερ* with *σερ* (I. E. *svar*), and *ser-mo* with *ver-bum*, *wor-d*. He speaks (on α, 155) with at least toleration of the absurd attempt to connect φόρμιξ (twice in one note printed φόρμιξ) with φροίμιον. Ἔδνον he supposes (App. A. 14) to be perhaps akin to Engl. *wed*, which really goes with Lat. *va(d)-s*, and probably with Gr. ἄεθλον. Connecting (on ι, 155) the second part of the compound ὀρεσ-κῶς, no doubt rightly, with κοίτη, κοιμάω and κείμαι, he adds that this last is really κεF, and compares it with Lat. *cuo* and *ci-v-is* [*sic*]: but *cuo* is related, not to κείμαι, but to κύπτω (root κυφ); and *ci-v-is* (for it is not *ci-v-is*), akin to the Greek stem κει, goes back, not to a root κεF, but to a primitive *ki*, indicated by Skt. *ḥi*. On ι, 447, he speaks of *bake* and *cook* as having to each other a similar relation to that of Gr. πεπ and Lat. *coq*: but initial π is not represented by *b* in English, and *bake* and *cook* are entirely unconnected—the former, as Buttman's article on φοξός might have suggested to Dr. Hayman, being cognate with Gr. φώγω. On the name

yard; so that the Greek cognates of its two elements are *ρίζα* and *χόρος*. On *νήις* (in *θ*, 179) he says: “*νήις*, i. e., *νήις*, contains the old English verbal stem ‘I wis’ and the German *wissen*, elsewhere found to involve *δ*, as in *ἄφιδρησι*, *φοῖδα*, and *video*.” But surely the final *σ* of *νήις*, acc. *νήιδα* (cf. *Il.* η, 198), is not radical, but simply the characteristic of the nominative, the word being really *νηιδς*. *Wissen* is New High German from O.H.G. ‘wiz-an,’ which with the regular consonant-change represents original *vid*. It may be added that the “I wis,” which occurs in our older writers, is held by all good English Etymologists to be, not a verb with the pronoun of the first person, but an adverb *γwis* = Germ. *gewiss*, and meaning *certainly*. Dr. Hayman makes *κίρκη* (on κ, 135) to be probably akin, not only to *κίρ-νᾶω*, ‘to mix,’ but also to *κυκάω*; and *Αἰαίη* and *Αἰήτης* to *ἡώς* [which is really *αὔωσς*]; on what principles I do not understand. Nor is it possible to follow him in believing (*μ*, 104) that *Χάρυβδις* is a variety of *ροῖβδος*, “the rough breathing *χα* being evolved from the aspiration of the *ρ* initial [and] perhaps expressing the efflux as well as the influx of the water”!¹⁰

If, besides these isolated statements taken from different parts of the work, the reader desires to see some passages of greater length, in which the vices of Dr. Hayman’s Etymological principles and methods are exhibited in a concentrated form, and where at the same time the evil influence which has led him and so many others astray is

¹⁰ To pass for a moment from the domain of Etymology: it can, of course, be only by a lapse of the pen that Dr. Hayman gives *οδς* (instead of *δν*) *κῆδορτο*, on λ, 543; and *εθη* for *εθμε*, on ι, 486. A similar momentary oversight has led him to the strange mistranslation “hereafter” for *πᾶποιθεν*, in ζ, 174. I should hope that on recon-

sideration he would not persevere in what I must call the idle fancy (on λ, 61), which does not help us at all in the doctrine of the Digamma, that final *σ* in Epic Greek, like *s* in early Latin poetry, might be unpronounced at the discretion of the hearer, as *ex. gr.* in the combination *ἀδελφᾶτος Φοῖνος*.

distinctly indicated, let him take the two following extracts.

The first is from the opening article of the Appendix to vol. i. "ὦ, the voice, ὅρα, a hole, ὄμμα fr. ὄτρομαι (unused pres.), ὄσσομαι, ὄσσε, as *oris*, *oculus* (Donalds. *New Crat.*, § 216), seem all modifications of a radical sound based on the vowel *o*, in connexion with a labial, or some sound representing it. The simple notion of which that sound is the symbol may be assumed to be a hole or orifice, of which the letter *o* is indeed the shape. The verb or adj. 'open' stands in close connexion. Hence the above words expressing 'mouth' or 'eye' deduce themselves at once, for there is nothing which we open so frequently or easily as these organs. Hence ὦ, 'voice,' comes straight from the root, being the *os*, 'mouth,' open for the primary purpose of emitting sound. Then, we may suppose, came the strengthening of the root by the accession of the F in *vox*, *Féres*, *Férew*, this F containing the labial of the root, with the guttural [comp. as above, *inquam*] into which that labial sometimes passes, as in *coquo* = *τίσσω*, *τετ-* (Donalds., *ub. sup.* and *Gr. Gr.* § 18 *f*). Now the *érew* in *ἐνέrew* may be from the simple root before the F was added. . . ." What is the truth about the words respecting which so many erroneous or loose assertions are here heaped together? There are two quite distinct Indo-European roots, *ak* and *vak*, the former meaning to *see*, the latter to *speak*. The former, whence in Skt. *aksī*, the eye, and *iksh*, to see, represented in Latin by *oculus*, is in Greek ὄρ, and appears in ὄρα-σθαι, ὄδωμαι. ὄμμα (for ὄπ-μα), ὦψ, &c. From ὄρ comes ὅρα in the primary sense of a *spy-hole*. By a well-known change of the Greek language we get ὄσσε from ὄκ-τε (comp. *λακων*, ὀφθαλμός in Hesychius), and ὄσσομαι from ὄκ-γομαι. To the root *vak* (comp. in Skt. *vak*, in Lat. *vox*) corresponds *Fer* in Greek, just as *σπ* in *ἐσπρωμι* corresponds to Skt. *sat*, Lat. *sequar*. This Greek root gives us *Férew*,

ἔπος, ἔψ (voice). The F of Fεπ contains no guttural; it is simply = *v*: but the π in Fεπ is to the *c* in *voc* (*voc-s*), as the π in πεπ is to the *c* in *coquo*. The notion of an original Greek root επ, afterwards strengthened by the accession of the digamma, is, in the literal sense of the word, preposterous; the tendency, in all the history of the Greek language which comes within our knowledge, has been not to the accession, but to the disappearance of F. Nor can we go behind forms of the primitive Indo-European speech which are elicited by comparison of all the languages of the family; and such a form *vak* undeniably is. *Os, oris*, has nothing to do with either *ak*, ὀπ, or *vak*, Fεπ, but is the same with the Skt. *āsyam*, mouth, and is probably, though not certainly, from the root *as*, which, originally meaning *to breathe*, came to signify existence, and so gives us εἶμι (ἔσ-μι) and *sum* (*es-um*). What is the exact point of Dr. Hayman's remark that the letter *o* is the shape of a hole or orifice? Did not Indo-European speech precede every form of Indo-European writing? And does not Greek *o* come in every case from primitive *a*? "Open," he tells us, "stands in close connexion." It might just as reasonably be said that "operio," to close, "stands in close connexion." The word "open" would certainly go back to a Gothic form with *u* (not *o*) in the first syllable.

The second passage which I shall quote is to be found in Appendix A. 23. He there says of the *se, seo*, of our earliest English: "The *s* in these is a trace of the 2nd person oldest form *Fa* (Donaldson, *New Crat.* § 132), and accordingly *se* has a bye-form or dialectic form *the*, and *seo* has *theo* or *thim*, recalling *thee, thou* of the 2nd pers. So ὦ οὖρος is 2nd pers. and ὦ τάν = O you. So the Greek σὺ is connected not only with the Latin *tu* of 2. pers., but with *sui* (F) of the third."¹¹ Here indeed is confusion. What are the

¹¹ In the text on which the above this same view in the following words: extract is a note, Dr. Hayman states "When a pronoun of the third person

facts? The Indo-European demonstrative pronoun, which is used for the definite article, has for stem, in the masculine and feminine, *sa* or *ta*; in the neuter, *ta* only. Behind this we cannot go. It is purely gratuitous to say that this *sa* ever had anything to do with the second person. The oldest form of the second personal pronoun, known to us, is *tva*, not *Fa*. The primitive form of that pronoun in Greek is not *σú*, but *τú*, from which *σú* is derived by a process habitual to the language. *Σú* is not at all connected with *σú*, which goes back to I. E. *sva*. *The* is not a "bye-form or dialectic form" of *se*, as may be seen by comparing German *der*; it is regularly connected, like *der*, with original *ta*, exhibiting, as *der* also does, the usual *Lautverschiebung*.

I think I have made out my case with respect to Dr. Hayman's work. I will not warn students off from his book, because it contains so much that is good, and because we have in English so little else of value on the Odyssey. But I advise them to be profoundly distrustful of his Etymology. Might we venture to hope that in the preparation of the remaining volumes Dr. Hayman would apply himself to strengthen this weak element in his edition; correcting the errors into which he has fallen, following more uniformly the methods, and appropriating more thoroughly the results, of modern linguistic science, and thus raising the Etymological portion of his work to the same level of merit with the rest?

was wanted to become a subject, it [what?] fell back on the pronoun of the second person, to which originally belonged and from which were developed the *se seo* of our earliest English and the *δs* or *δ*, *η* of Greek, the aspirate in which last represents the sibilant of the former." That the *relative*

δs of the Greeks (also sometimes demonstrative, as in *δ' δ' δs*) had for its lost initial sound in all probability not *s*, but *y*, is implied in Curtius' comparison of *ἡμος*, *τῆμος* with *yar-mdt*, *tar-mdt*, which is quoted without dissent (though with a clerical error) by Dr. Hayman, on *q*, 318.

JOHN KELLS INGRAM.

PROPERTIANA.

PROPERTIUS, Book II. iii. 22. [Ed. Keil].

Et sua cum antiquae committit scripta Corinnae,
Carminaque Erinnes non putat aequa suis.

NO manuscript has *Erinnes*, or anything like it, in the second line. The Naples MS., usually considered the best, has *Carmina quae quivis*. Hence I propose to read—

Carmina quae quaevis non putat aequa suis,

and to give a totally new interpretation. *Corinnae* is the antecedent to *quae*; and the meaning is that Cynthia considered her writings as good as those of Corinna, *who thought no poems in the world equal to her own*. The proud Corinna has now met her match. Only a few fragments of Corinna's poetry are extant, but even in those few we have evidence that the Boeotian poetess was somewhat vain of her lyric powers. She writes

μέγα δ' ἐμῆς γέγαθε πόλις
λεγουροκωτίλης ἐνοπῆς.

Frag., ed. Bergk.

If it is true that she vanquished the "Theban eagle" in a lyrical contest, and if, as Eustathius tells us ad *Il.* β, p. 247, 30, οἱ στίχοι αὐτῆς ἐκρίθησαν ἐνάμιλλοι τοῖς Ὀμήρου, Corinna had a right to be proud.

It will be noticed that the only change in the MS. that I make is the substitution of *e* for *i* [*quae quaevis* for *quae quivis*—

vis]. The Groningen MS., of the merits of which codex far too high an estimate was formed by Lachmann, has *lyrnes*, the nearest approach in any MS. to *Erinnes*; but I regard this merely as a desperate attempt to introduce a genitive.

II. ix. 37.

Nunc quoniam ista tibi placuit sententia, cedam :

Tela, precor, pueri, promite acuta magis.

The jealousy of the poet has been excited, apparently on good grounds, and he writes a bitter complaint to Cynthia, beginning *Iste quod est, ego saepe fui*.

I should have nothing to say about the two verses above were it not that Mr. Allen's manuscript (*i. e.*, Scaliger's¹) has a curious reading which for a long time I could make nothing of: it has *sma* for *sententia*. I have solved the enigma, to my own satisfaction at least, and read with some confidence,

Nunc quoniam iste tibi placuit, stultissima, cedam.

Against the ordinary reading may be urged that *sententia placuit* is a very sober prosaic expression; *sententia* in fact is used nowhere else by Propertius. The proposed alteration has many things to recommend it: first, the application of *iste* to his rival, as in the first line of the poem; secondly, the use of *placuit*. *Placere* is the regular word for winning the affections of anyone. So our author:

I. ii. 26.

Uni si qua *placet* culta puella sat est.

¹ See an article by Professor Ellis and the writer, in "*Hermathena*," vol. ii. p. 124. The MS. having been written at Perugia, and Propertius being

almost a Perugian, with some propriety I think I shall call the MS. in future the CODEX PERUSINUS.

II. vii. 19.

Tu mihi sola *places* ; *placeam* tibi Cynthia solus.

So Ovid,

HER. VI. 83.

Nec facie meritisque *placet* : sed carmina novit.

Instances of this use of *placeo* might be multiplied *ad libitum*. Thirdly, the use of *cedam*,—"Since he has gained your heart, I will resign my pretensions."

Now, as to *stultissima*, I believe *smā* may be a contraction of this word ; it certainly is a contraction of some word, and what is more, of a long word. I do not find in the codex Perusinus as short a contraction again, but I find it has in another place *stus* for *stultus*.

Propertius calls Cynthia a fool again, III. xiv. 18,

Experta in primo, stulta, cavere potes ;

and again, IV. xix. 5,

At tu, stulta, deos tu fingis inania verba ;

in both cases with reference to her folly in allowing her affections to be engaged by an unworthy lover.

V. iv. 55.

Sic, hospes, pariamne tua regina sub aula ?

Dos tibi non humilis prodita Roma venit.

It seems to me that this passage, which has been regarded as corrupt, is quite sound, and presents little difficulty, if we put a question stop at the end of the line, as I have done—"Shall I on these conditions, for these services (*sic*), be your queen and mother of your children, stranger?"

On v. ix. 74, "Sic Sanctum Tatiae composuere Cures," Mr. Paley explains *sic* as ἐπὶ τοῖσδε, and so I explain it here.

ARTHUR PALMER.

NOTE ON EUR. BACCH. 1059.

EUR. BACCH. 1059.

ὦ ξέν', οὐ μὲν ἴσταμεν
οὐκ ἐξικνούμαι μαινάδων ὁσσοῖς νόθων.

TRANSLATE, "I cannot reach with mine eyes these *simular* maenads." Compare King Lear, "Thou *simular* man of virtue."

Mr. George O'Connor, M.A., of Queen's College, Galway, in his brief but original and judicious notes to a very brilliant translation of the *Bacchae*, which he has recently published,¹ has pointed out "that in the poems of Catullus are to be found many reminiscences of the *Bacchae*; at the time of his composition of the 'Attis' especially, Catullus appears to have had the language of the *Bacchae* fresh in his memory."

I think Mr. O'Connor has shown very good grounds for his ingenious remark; and it seems to me no small confirmation of the soundness of νόθων in the passage quoted above, that Catullus uses *nothus* in the same metaphorical sense when he calls Attis *notha mulier*, lxiii. 27:

simul haec comitibus cecinit Attis, *notha mulier*.

Catullus also applies this epithet to the borrowed light of the moon in xxxiv., 15.

The other passages of Catullus in which Mr. O'Connor sees signs of a recent study of the *Bacchae* are:—

BACCH. 59.

τύπανα, 'Ρέας τε μητρὸς ἐμά θ' εὐρήματα,

¹ Dublin: E. Ponsonby. 1876.

with which he compares Cat. *Attis*, 10,

niveis citata cepit manibus leve *typanum*,
typanum, tubam Cybelles, tua, mater, initia ;

ingeniously suggesting that *tua initia* means "thine own invention," εὐρήματα.

BACCH. 32, 33.

τοίγαρ νιν αὐτὰς ἐκ δόμων ὤστρον' ἐγὼ
μανίαις ὄρος δ' οἰκοῦσι παράκοποι φρενῶν.

Cp. Cat. *Attis*, 4,

stimulatus ibi furenti rabie, vagus animis.

BACCH. 506.

οὐκ οἶσθ' ὅτι ζῆς οὐθ' ὁρᾷς οὐθ' ὄσσις εἶ.

Mr. O'Connor, reading οὐθ' for οὐδ' of the MS. after ζῆς, renders, *Thou knowest not thy blind life* (in ignoring me), *nor what thou seest* (me, the god incarnate), *nor who thou art* (Pentheus, the man of sorrows); and compares Cat. xvii., 21, 22 :

talis iste meus stupor nil videt, nihil audit,
ipse qui sit, *utrum sit an non sit*, id quoque nescit.

Mr. O'Connor adds that Catullus may have taken οὐκ οἶσθ' ὅτι ζῆς in the sense of "thou knowest not that thou art alive" (= "whether thou art alive or not").

BACCH. 864.

δέραν
εἰς αἰθέρα δροσερὸν
ρίπτουσ'.

Cp. Cat. *Attis*, 23,

ubi capita maenades vi iaciunt ederigeræ.

BACCH. 990.

λεαίνας δέ τινας ὅδ' ἡ Γοργόνων Λιβυσσᾶν γένος.

Cp. Cat. lx. 1,

num te leaena montibus Libystinis, &c. ;

Cat. lxiv. 154-157,

quaenam te genuit sola sub rupe leaena, &c.

Mr. O'Connor observes that the whole passage in this poem describing the maenad revels (lxiv. 251-264) is woven out of lines from the Bacchae; *ex. gr.*, verse 260,

orgia quae frustra cupiunt audire profani,
is plainly indebted to Bacch. 472,

ἄρρητ' ἀβακχεύουσιν εἰδέναι βροτῶν.

BACCH. 1056.

αἱ δ' ἐκλιπούσαι ποικίλ' ὥς πᾶλοι ζυγά.

Cp. Cat. *Attis*, 33,

veluti iuvenca vitans onus indomita iugi.

In my edition of the Bacchae I used some of "the asperities of the Brunckian age" in characterising the imposture by which Henri Estienne (the famous Stephanus) recommended his own conjectures by the authority of pretended MSS. He has vitiated all the subsequent criticism of the Bacchae by this fraud, and notably has deserved ill of v. 1061, into which *μόθων* and *δσον* would never have been introduced but for the belief that these words were actually found in his *veteres codices Italici*. It is singular that a precisely similar fraud has been practised with reference to the Letters of Cicero by another Frenchman—I mean Du Bos, better known as Bosius. It was not until the year 1855 that Maurice Haupt discovered that no such MSS. as the *Decurtatus* (v.) and *Crusellinus* (x.) of Bosius ever existed. The arguments of Haupt acquired the certainty of a demonstration when Mommsen found that a MS. deposited in Paris contained the rough draft of Bosius' notes for the last seven books of the *Epp. ad Att.* On comparing these with the published commentary of

Bosius, Mommsen found that he had frequently ascribed one reading to the MSS. in his first draft, and quite another in the published commentary. In each case Bosius recommended his own conjecture by the authority of the fabricated MS.; and in some cases he changed his view of a passage in the time intervening between the first draft and the ultimate publication, and accordingly changed his account of the reading of his MS. For instance, in Epp. ad Att., x. 6, 2, Bosius in his published edition reads *De Quinto filio fit a me sedulo*; on which he states that his *codex Decurtatus* has *de Q. F.*, and his *Crusellinus*, *de Q. filio*. In his unpublished *première ébauche* found by Mommsen, he had given as the reading of the *Decurtatus*, *de Q. frat.*, adding "Victorius legit *de Q. filio*, quam scripturam in meis non reperio." Baiter certainly transcends the "asperities of the Brunckian age," but does not (at least in his own opinion) transcend that emphasis of expression which is warranted by the case, when after narrating the circumstances just referred to he adds "*Bosium cito scelus suum morte luisse a latronibus trucidatum.*" It is a strange coincidence that these two Frenchmen, Stephanus and Bosius—both scholars of the most profound learning, and of almost unsurpassed brilliancy in emendation—should have stooped to a fraud to establish conjectures, which in some cases were so good that they must have been almost universally accepted as certain conjectural emendations, if candidly put forth as such. It is curious too to observe the different way in which scholars have received the disclosure of each of these impostures. Since Haupt and Mommsen proclaimed the disingenuousness of Bosius, the subsequent editors have vied with each other to swell the chorus of obloquy, "and none so poor to do him reverence." We hear of nothing but "*fraus et fallacia*," "*mendacium fraudulentum hominis*," "*audacia et perfidia*;" and Baiter goes so far as to say "*furca igitur*

expellendae quotquot lectiones a sola Bosianorum codicum auctoritate pendent." But Stephanus has been more fortunate. Kirchhoff has proved the non-existence of his *veteres codices Italici* as clearly as Haupt has proved the non-existence of the X. and Y. of Bosius. Yet Dindorf has not a word to say about his imposture; and Mr. Paley charitably gives βέλως on Bacch. 25, as Stephens' *correction* of μέλως of the MSS., without hinting that he alleged for it substantive MS. authority; and on v. 1060 the same justly valued editor puts forward δποι μόθων as the conjecture of Musgrave for ὕσοι νόθων, adding that Elmsley tells us that Porson approved δποι μόθων—as if Musgrave would have proposed, or Porson approved, such a reading, if they had known that μόθων was nothing more than a guess of Stephens; that the MS. to which he ascribed it never existed; and that all his statements about it, and his quotations from it, are mere fictions. So little real interest in the state of the text of the Classics is felt, even by the most industrious and most widely read of English editors.

R. Y. TYRRELL.

THE TRUE ARISTOTLE.

THE great obstacle to the intelligent study of the ancient philosophy is the peculiarity of the philosophical formulae which it employs, and the difficulty of translating them into the corresponding formulae of modern thought. It is this that renders the philosophical works of Cicero, for instance, so unintelligible to the majority of readers, who visit their want of intelligence upon the author, and regard him either as a sciolist or as an impostor. The *προηγμένα* and *ὑποπροηγμένα* of the Stoics, their *καθήκοντα* and *κατορθώματα*, in the mouths of the interlocutors in the dialogues of Cicero, appear little better than the reciprocal dialogisms with which Squire Thornhill posed honest Moses in the parlour of the Vicar. It is from this cause that the philosophical works of Cicero even to the present moment await their editor. The scholars who have hitherto undertaken the task have not been philosophers; the philosophers who have made the attempt have not been scholars; and neither scholars nor philosophers have entertained the faintest idea of converting the ancient philosophical formulae into their modern equivalents.

Perhaps of all ancient philosophers the one who is the most famous, and who has attracted the greatest multitude of editors, is the one who has been least appreciated and most glaringly misunderstood. The name of Aristotle has been in every mouth for two thousand years. In Athens, in Rome, in Samarcand he has been alike omnipotent. He has had editors, commentators, and translators by the thousand—followers and disciples by the myriad. The Church has invoked his aid for the defence of her dogmas,

and the Devil has been invoked to explain the mystic meaning of his words. He has been canonized; he has been anathematized; he has been burnt. Every vicissitude of fortune has overtaken him, except that of being understood.

The Ethics of Aristotle may fairly claim the glory which has been accorded to his Logic. It is the earliest systematic treatise upon the subject, and it is the best. And yet it may well be doubted whether, of all the thousand commentators upon that great work, even one has had a glimpse of the real philosophic import of its fundamental doctrine. To enable us to approach this question with advantage, let us take a bird's-eye view of the lie of the different questions which are discussed in that masterpiece of philosophical analysis.

With Aristotle, Ethics is only the vestibule of Politics, and the great object of Politics, in the eyes of the philosophic politician, is the promotion of the happiness of the state. The happiness of the state is made up of the happiness of individuals; and the happiness of individuals, considered as members of society, consists in the active exercise of moral virtue. The main security for the performance of the duties which virtue enacts is early habit. Habit is formed by the due regulation of the pains and pleasures of the young. The education of the young can never be thoroughly carried out, except under the supervision of the state; and the state, therefore, according to Aristotle, as according to Plato, should undertake the whole work of education.

The preliminary discussion of the Ethics, then, relates to happiness, which Aristotle considers to be the great object, the end and aim of action (*τέλος*). In what does happiness consist? Aristotle pursues the same method in arriving at his definitions that Bacon pursues in the investigation of the laws of nature. He passes in review all preceding

theories; he rejects them one by one as incompetent to explain the facts; and thus he arrives at his conclusion. *Post rejectiones et exclusiones debitas necessario concludit.* As to happiness, his conclusion is that it consists neither in abstractions, nor the pursuit of honour, nor devotion to the pleasure of the moment; but that it is to be found in the exercise of our higher faculties in their perfection, the satisfaction of the conditions demanded by our physical existence and sensuous nature being presupposed. In other words, it is *ψυχῆς ἐνέργεια κατ' ἀρετὴν τελειοτάτην ἐν βίῳ παλείῳ*. But what are our highest functions? Considered as an isolated being, *βίον μονώτην ἄγων*, man possesses no higher faculty than his intellect; and the free play of the intellect then may, in an abstract point of view, be regarded as his greatest happiness, his highest good. But man is not isolated; he is a member of society. He is not mere intellect; he is a composite of intellect and passion. In what, then, does his prime happiness, taking him as he is, consist? Aristotle proclaims, as Pope proclaimed—

Know, then, this truth, enough for man to know,
Virtue alone is happiness below.

This principle, however, he makes no effort to establish. He *assumes* it as a principle, and starts ἀπὸ τῶν ἀρχῶν; he does not *prove* it as a fact, and proceed ἐπὶ τὰς ἀρχάς. He insists with Butler that there is and must be “a general liking of what is fair, and abhorrence of what is base:” *δὲ τὸ ἦθος προϋπάρχειν πως οἰκείον τῆς ἀρετῆς στέργον τὸ καλὸν καὶ δυσχέραινον τὸ αἰσχροῦν* (X. 10). If there is any one who has no natural bias to virtue (*ἀρετὴ φυσική*); if a man, unfortunately for himself and society, has not been trained to the performance of acts of virtue as a habit (*ἀρετὴ ἐθιστή*); if he takes no pleasure in the conscious perception and deliberate purpose which constitutes virtue proper (*ἀρετὴ ἠθικὴ*); if, in a word, he is one who delibe-

rately prefers vice for its own sake ;—then, in the opinion of Aristotle, as in the opinion of Shaftesbury, the case, apart from all consideration of future rewards and punishments, is without remedy (*ἀνίατος*)—nay, on the doctrine of both the Ethics and the Characteristics, it is only the ‘thorow profligate knave’ (*ἀκόλαστος*) who can contend with any show of success for happiness with ‘the honest man.’

In what, then, does virtue itself consist? *Virtutis omnis laus in actione consistit.* So says Cicero; so says Aristotle. But how is any definite course of virtuous action to be secured? Reason, in itself, is no sufficient principle of action in such a creature as man. So says Butler; so asserts his predecessor—*διάνοια αὐτῇ οὐθὲν κινεῖ.* There must be some motive to influence the mind. Not only must there be a motive to determine it to momentary action, but there must be a habitual disposition of the various principles of human nature to determine to a course of conduct. Aristotle supplies the answer to this question by his celebrated definition of moral excellence (*ἀρετὴ ἠθικὴ*): it is *ἕξις προαιρετικὴ ἐν μεσότητι οὖσα τῇ πρὸς ἡμᾶς ὠρισμένη λόγῳ καὶ ὡς ἂν ὁ φρόνιμος ὀρίσειεν.*

Now, what is this doctrine of the Mean? No doctrine has been more celebrated—no doctrine more discussed and more denounced. Let us take the Roman Orator for its popular exponent. According to Cicero, the Mean is *vitiorum mediocritas*—moderation in our vices. *Fiat adulter, says Cicero, sed modice.* This may be said to be the expression of the general opinion of the commentators from Cicero downwards, and yet a more shallow misconception can scarcely be imagined. Take the definition of Aristotle as it stands. Expressed in the unfamiliar language of the old Greek, it may be regarded as mere jargon; translated into its modern equivalents, it will be seen to be a profound and comprehensive truth. Let us

take its elements one by one. Virtue is *ἕξις προαιρετική*—it is a deliberate preference, a deliberate purpose. So say all the commentators. But look at the matter more closely. Virtue is a disposition of the mind which deliberately prefers—*what?* That is a question which no editor, or commentator, or translator seems ever to have asked. Aristotle, *at the time*, is silent on the subject. He is working out his definition step by step. It is incomplete, or, rather, it is not yet completed; it is only in process of formation. Aristotle, however, eventually completes it. He tells us that the man of fortitude (*ἀνδρεῖος*) is not the man who is insensible to fear, but the man who sustains hardship and defies danger because he ought, *τοῦ καλοῦ ἕνεκα*—*ὅτι καλόν* (iii. 7)—and why? Because *this* is the *end* of all virtue: *τοῦτο γὰρ τέλος τῆς ἀρετῆς* (*ibid.*) It is the same with temperance as with courage. The *mark* of both is the same: *σκοπὸς γὰρ ἀμφοῖν τὸ καλόν* (iii. 12). Every act of virtue, in short, is a good act, done from a good motive: *αἱ κατ' ἀρετὴν πράξεις καλὰ καὶ τοῦ καλοῦ ἕνεκα* (iv. 1). It must be done, *ὅτι καλόν* (*passim*); it must be done, *τοῦ καλοῦ ἕνεκα* (*passim*); it must be done, *διὰ τοῦ καλοῦ ὁρεξιν* (iii. 8). If it is done under the influence of any passion, which, though it co-operates with it—*συνεργεῖ*—yet does not constitute it (iii. 8); if it is done mechanically, from mere habit—*ἀπὸ ἕως* (iii. 8)—it is not an act of virtue. The whole glory and delight of action is centered in its end, *οὐ δὲ ἐν ἀπάσαις ταῖς ἀρεταῖς τὸ ἡδέως ἐνεργεῖν ὑπάρχει, πλὴν ἐφ' ὅσον τοῦ τέλους ἐφάπτεται* (iii. 9). It is plain therefore that, on the true Aristotelic theory, there is a mark at which the man of virtue aims: *ἔστι τις σκοπὸς πρὸς ὃν ἀποβλέπων ὁ τὸν λόγον ἔχων ἐπιτείνει καὶ ἀνίσχεται* (vi. 6)—a passage, by-the-bye, from which Sir Alexander Grant concludes that the sixth book could not have been the work of Aristotle, because “in the use of the terms *δρος* and *σκοπός*, we observe something which has no parallel in *other* books of Aristotle, and

which is, apparently, an innovation introduced into the system by Eudemus!"¹

But if the Aristotelic conception of virtue be such as we have shown it to be, if virtue be *ἕξις προαιρετικὴ τοῦ καλοῦ*, the futility of the Ciceronian objection will at once appear. Indeed, what is most remarkable, Aristotle himself anticipated this very objection; and, as he fondly imagined, obviated and neutralised its force. *Adultery*, he says, as well as theft or murder, are acts which do not admit of a Mean, because they are condemned by the moral faculty as inherently, intrinsically wrong—*ψέγεται τῷ αὐτῷ φαῖναι εἶναι*.

But if virtue thus implies a deliberate preference of what is right, in what sense is it related to the Mean? What is the meaning of the words *ἐν μεσότητι οὔσα*? "Virtue," says Sir Alexander Grant, "is a developed state of the moral purpose, in relative balance, determined by a standard according as the wise man would determine" (note to ii. 6). I honestly confess these words convey no meaning whatsoever to my mind. Why in "relative balance"? and what does "relative balance" mean? Acts of virtue, says Aristotle, can only emanate from a virtuous state of mind; and what is the virtuous state of mind will be evident if we take a philosophic view of its nature: *ἐν θεωρησώμεν ποία τίς ἐστὶν ἡ φύσις αὐτῆς* (ii. 6). What, then, is the philosophic nature of the mind? *ἐν παντὶ δὴ συνεχῆ καὶ διαιρετῶ*, says Aristotle, *ἔστι λαβεῖν τὸ μὲν πλεῖον τὸ δ' ἑλάττω τὸ δ' ἴσον*, κ. τ. λ. (ii. 6). Now, what is the meaning of this celebrated passage? Cardwell gives it the go-by. Grant gives it a translation and a comment. "'Now in all quantity both continuous and discreet', the terms here are not meant to go together, as if it were 'in all that is continuous and at the same time capable of division.' For

¹ Essays, p. 37, 1st ed.

the assertion to be made is not limited to continuous quantity, or space; and again it stands to reason that this is **divisible**." But what is the meaning of 'continuous and **discreet**'? "The two forms of quantity are referred to," he says, and he refers us to the Categories—to the Politics—to the De Caelo. But what have the two forms of quantity to do with the question in hand? What have they to do with the nature of man as an active being? How do they show that virtue exists only *ἐν μεσότητι οὐσα*? What have they to do with the "relative balance determined by a standard according as the wise man would determine"? The editor is silent; the annotator makes no sign; the oracle is dumb. Old Magirus, edited by Walker, Coll. S. Mariae Magdalenae Socius, Oxon., and refurbished up and republished at Oxford, "typis et impensâ J. Vincent, 1842," at all events makes an attempt at an explanation. "Minor tantum hoc modo probatur," he says: "*quaecunque sunt continua et dividua*, i.e., *quaecunque possunt dividi*, *in iis sunt haec tria—plus, minus, et aequale*. Nam omnis divisio et partitio alicujus continui fit in partes, vel majores, vel minores, vel aequales: sed *affectiones et actiones possunt dividi*: ergo *in affectibus et actionibus reperiuntur haec tria—plus, minus, et aequale*" (p. 77). Quod erat demonstrandum! But in what sense can our affections and our actions be divided? Walker gives us as little assistance as Cardwell or Grant. Chase and Williams are equally silent. Oxford has nothing to say as to the fundamental doctrine of the Essay, which has for centuries been the text-book of her choice. Let us turn for the true interpretation of this simple passage to a different quarter. Let us leave the scholars—whether commentators, editors, or translators—and let us have recourse to a philosopher who uses words like mathematical symbols, and is more difficult to understand from the rigorous accuracy of his language, than other writers are from the inaccuracy of

theirs. "Whoever thinks it worth while to consider this matter thoroughly," says Butler in his Preface to his Sermons on Human Nature, "should begin with stating to himself exactly the idea of a system, oeconomy, or constitution of any particular nature, or particular anything Appetites, passions, affections, and the principle of Reflection, considered merely as the several parts of our inward nature, do not at all give us an idea of the system or constitution of this nature; because the constitution is formed by somewhat not yet taken into consideration, namely, by the relations these several parts have to each other, the chief of which is the authority of Reflection or Conscience." "Whoever will consider his own nature," he says in the third Sermon, "will see that the several appetites, passions, and particular affections have different respects among themselves. They are restraints upon, and in a proportion to, each other. This proportion is just and perfect when all those under principles are perfectly coincident with conscience, so far as their nature permits, and in all cases under its absolute and entire control. The least excess or defect, the least alteration of the due proportions amongst themselves, or of their coincidence with conscience, though not proceeding into action, is some degree of disorder in the moral constitution. But perfection, though plainly intelligible and supposable, was never attained by any man. If the higher principle of reflection maintains its place, and, as much as it can, corrects that disorder, and hinders it from breaking out into action, this is all that can be expected from such a creature as man. And though the appetites and passions have not their exact due proportion to each other, though they often strive for mastery with judgment or reflection; yet since the superiority of this principle to all others is the chief aspect which forms the constitution, so far as this superiority is maintained, the character, the man is good, worthy, virtuous."

Now this is precisely and literally the Aristotelian doctrine of the Mean—nay, it is the Aristotelian conception expressed in the very words of Aristotle. In a passage of the Politics not cited by Sir Alexander he explicitly gives the Butlerian conception of a system (*σύστασις*), and from the same point of view distinguishes between the parts (*τὰ μέρη*) and (*τὸ ὅλον*) the whole: ὥσπερ τῶν ἄλλων τῶν κατὰ φύσιν συνεστώτων οὐ ταῦτά ἐστι μέρη τῆς ὅλης συστάσεως ὧν ἀντὶ τὸ ὅλον οὐκ ἂν εἴη (Pol. vii. 8, 1). In the passage which Sir Alexander cites, but of which he can scarcely have perceived the significance, Aristotle states that in every system which is composed of parts and constitutes a whole there is something that governs and something that is governed: ὅσα ἐκ πλείονων συνέστηκε καὶ γίνεται ἐν τι κοινόν, ἅτε ἐκ συνεχῶν εἴτ' ἐκ διηρημένων, ἐν ἅπασιν ἐμφαίνεται τὸ ἄρχον καὶ τὸ ἀρχόμενον (Pol. i. 5, 3). Nay, in the very book which he is editing, Sir Alexander would have found a passage in which Aristotle states as explicitly as Butler that the idea of human nature is the idea of a civil constitution, which “implies in it united strength, various subordinations under one direction, that of the supreme authority:” ὥσπερ δὲ καὶ πόλις τὸ κυριώτατον μάλιστ' εἶναι δοκεῖ, καὶ πᾶν ἄλλο σύστημα, οὕτω καὶ ἄνθρωπος (ix. 8). All the virtues, in fact, according to Aristotle, are related to the passions which constitute the elements of human nature, and go to make up the composite called Man:—συνηρημέναι δ' αὗται καὶ τοῖς πάθεσι, καὶ περὶ τὸ συνθετὸν, ἂν εἴεν· αἱ δὲ τοῦ συνθετοῦ ἀρεταὶ ἀνθρώπικαι (x. 8).

This, then, is the true doctrine of the Mean. The *συνεχὲς καὶ διαιρετόν* is nothing but the Whole made up of Parts of Bishop Butler. The *σύστασις*, the *σύστημα*, the *συνθετόν* are nothing but his System. The *μέσον* is the due proportion of the various principles of human nature. The *ἐπιβολή* is the inordinate development of any particular

appetite, passion, or affection. The τὸ κυριώτατον is Reason, Reflection, Conscience.

In the ideal state, πάντα ὁμοφωνεῖ τῷ λόγῳ, all the under principles are perfectly coincident with conscience, not only as to the occasions on which they may be gratified, which, according to Butler, is all that their nature admits, but even as to the occasions on which they are excited (Eth. iii. *ad finem*). In the actual state of disorder which constitutes human nature and human life, there is something which μάχεται καὶ ἀντιτείνει τῷ λόγῳ—"passions strive for mastery with judgment;" yet, so far as passion is obedient to judgment—πειθαρχεῖ γοῦν τῷ λόγῳ—so far by reason of the supremacy of conscience (τῷ κρατεῖν τὸν νοῦν), the man is worthy, good, and virtuous.

It is no slight glory for Aristotle to have thus anticipated by two thousand years the doctrine of those Sermons in which Butler, if we are to believe Mackintosh, "taught truths more capable of being exactly distinguished from the doctrines of his predecessors, more satisfactorily established by him, more comprehensively applied to particulars, more rationally connected with each other, and therefore more worthy of the name of *discovery*"—the italics are those of Mackintosh—"than any with which we are acquainted; if we ought not, with some hesitation, to except the first steps of the Grecian philosophers towards a theory of morals."²

But if virtue is regarded merely as a harmony of the soul, or even as an habitual disposition towards virtue, how, it may be asked, is this connected with action and a course of life? It is not the strongest man, to use Aristotle's own illustration, that is crowned at the Olympic games—it is the strongest wrestler. But the answer of

² "Butler owed more to Lord Shaftesbury than to all other writers besides." This is the sentence of Mackintosh.

the philosopher is ready: *πᾶσα ἀρετὴ οὗ ἂν ἡ ἀρετὴ τὸ εὖ ἔχον ἐν αὐτῷ ἀποτελεῖ καὶ τὸ ἔργον εὖ ἀποδίδωσι* (ii. 6). The perfection of a horse consists in the perfection of its points, and it is the perfection of his points that occasions the perfection of his running. With his soul in harmony with itself, the virtuous man will have the love of virtue; and, animated by the love of virtue, he cannot but act, and act virtuously—*πράξει γὰρ ἐξ ἀνάγκης καὶ εὖ πράξει* (i. 9). Subjectively, the perfection of human nature consists in the harmonious development and mutual subordination of its various elements; objectively, its perfection consists in the performance of its appropriate function, the due discharge of every moral duty. But it is only on the condition of the subjective development that the objective energy can manifest its force. The deliberate purpose only exists in the well-adjusted soul. Warburton observes, in the *Divine Legation*, that “unless the original passions and appetites be rightly tempered and balanced, the moral sense can never show itself in any strong or sensible effect;” and that fine writer compares its effect to that of the “candid appearance,” as he calls it, which, according to the Newtonian Philosophy, never emerges unless when all the primitive colours are harmoniously blended into one. This exactly expresses the view of the Stagirite. This gives an intelligible meaning to his definition of virtue, and adorns it with a brilliant illustration. Now, at length, we know what *ἠθικὴ ἀρετὴ*, what moral virtue is, and the significance of every element of which it is composed. It is that habitual disposition of the affections (*ἔξις*) in which we love virtue for its own sake (*προαιρετικὴ τοῦ καλοῦ*), a disposition which exists only when all our principles of action are in due proportion (*ἐν μεσότητι οὔσα*), having regard to our peculiar constitution (*τῇ πρὸς ἡμᾶς*)—a disposition under the constant regulation of reason (*ὠρισμένη λόγῳ*), considered as realised in a perfectly ideal

man (ὡς ἂν ὁ φρόνιμος ὀρίσκειν)—an ideal man corresponding to the Sapiens of the Stoics, the man within the breast of Smith.

We are now, to use a phrase which Bolingbroke adopts from Bacon, upon the vantage-ground of science. The true conception of the Mean, the conception of human nature, of a system, though first developed by the genius of Aristotle, lies at the foundation of all the most celebrated systems of Moral Philosophy. It was, in all probability, the idea which underlay the Unity of the Pythagoreans, and the Ataraxy of Democritus. It forms the true explanation of the Harmony of Plato. It reproduces itself in the Apathy of the Stoics, which, as first shown in the three treatises of Harris, was not absence of human affection, but the absence of those perturbing influences which the inordinate indulgence and the inordinate development of the passions must ever produce in human nature. It may be argued that the Indolence of the Epicureans, like the Apathy of the Stoics, was only another expression of the same idea. In modern philosophy the same theory presents itself in a variety of verbal masquerades. It is the theory of the Balance which plays so prominent a part in Shaftesbury's *Characteristics*. Naked and bare of all disguise, it is the System and the Proportion of Butler. Assuming a fresh disguise, it becomes the Propriety of Adam Smith. But under all its forms, whether regarded as Propriety, as Proportion, as Balance, as Indolence, as Apathy, as Harmony, as Ataraxy, or as Unity, it is the doctrine of the Mean, the μεσότης of the greatest and most comprehensive thinker that ever existed.

The relation between action and disposition is more systematically treated in the sixth book of the *Ethics* than in the second. This introduces us to the consideration of φρόνησις, which is discussed in the sixth book. In this book—nay, in all the books of the *Ethics*—there is a sense

of deficiency, in the artistic point of view, as if the work had not received the last touches of the artist's hand. They are full of repetitions. It is the same with the works of Bacon. We have the same discussions recurring in the *Novum Organum*, the *De Augmentis*, the *Cogitata et Visa*, the *Parmenides*, and a variety of other tractates. Execution lagged behind the swift comprehension of those master minds. The intellectual material was so enormous, that a large portion of it remained to the last a rude and undigested mass. We have systematic thought, but not systematic treatises. The Nicomachean Ethics, in particular, presents the appearance, not of a treatise, but of a collection of treatises, *pinned* together, as it were, prior to a final revision, and the perfection of a completed work. It is no wonder, therefore, that it contains repetitions, imperfections, incongruities; that it manifests the absence, above all, of those *callidae juncturae* and imperceptible transitions which constitute the prime difficulty and the culminating triumph of the art of composition. But the doctrines, the opinions, of the great thinker are everywhere transparent, and nowhere more so than in the discussion of the faculty which he styles *φρόνησις*. Now, let us once again listen to Sir Alexander Grant. "Suppose," he says, "we accept *φρόνησις* as Aristotle's term for the Moral Standard, we must, in the first place, miss any explanation of its connexion with the Mean; secondly, we do not find it harmonious with *βούλησις*, *βούλευσις*, and *προαίρεσις*, as they are described in Book iii." A most curious infelicity of criticism! Let us investigate the matter.

"Let us consider," says Aristotle (vi. 5), "the application of the word 'wise,' or 'prudent' (*φρόνιμος*), and we shall thus obtain an insight into the real nature of the virtue Prudence, *φρόνησις*. A wise man is one who carefully considers what is for the best in the general conduct

of life. We do not apply the term to one who, like a physician, does what is best in the exercise of his profession. Still less do we apply the term to the man of science who deals with necessary principles which he can neither modify nor control; or to the artist, who adapts means to an end, it is true, but whose end is something out of and beyond his art. The man of prudence is the man who habitually considers what is for his highest and best interests, and so regulates his conduct as to attain it. Accordingly, we style a great statesman, like Pericles, a prudent man, because he is able to advance and secure the real interests of the state."³ Prudence (*φρόνησις*) is defined to be *ἔξις ἀληθοῦς μετὰ λόγου πρακτικῇ περὶ τὰ ἀνθρώπων ἀγαθὰ καὶ κακά* (vi. 5). But as the good and evil, the happiness and misery, of mankind are to be found in virtue and vice, respectively, it is clear that *φρόνησις* may properly be defined

³ The above is intelligible enough, and is replete with good sense. But in all the editions which I have seen, there is a strange dislocation of sentences, which entails a corresponding dislocation of the meaning. "Prudence," Aristotle is represented as saying, "cannot be science (*ἐπιστήμη*) nor art (*τέχνη*)—[not] science, because matter of action is not necessary matter; [not] art, because the nature of action is different from that of production. Therefore, prudence is a habit of action, because the result of production is different from itself, whereas the object of action is not necessarily so, for acting well is itself an object of desire, and accordingly we style a statesman, like Pericles, a prudent man, &c." It is clear we have here the forms of logic without the force. There is no more cogency in the argument than in the

therefore—because—accordingly of Captain Bunsby, or the *verum enim vero, quandoquidem, procul dubio*, of Master Janotus de Bragmardo. The fact is, the pieces of the puzzle-map have not been properly put together in the text. The clause beginning with the word *λείπεται*, and the clause beginning with the words *τῆς μὲν γὰρ*, have been transposed, and the passage should indubitably run as follows: "*οὐκ ἂν εἴη ἡ φρόνησις ἐπιστήμη, οὐδὲ τέχνη· ἐπιστήμη μὲν, ὅτι ἐνδέχεται τὸ πρακτὸν ἄλλως ἔχειν· τέχνη δ', ὅτι ἄλλο τὸ γένος πράξεως καὶ ποιήσεως· τῆς μὲν γὰρ ποιήσεως ἕτερον τὸ τέλος, τῆς δὲ πράξεως οὐκ ἂν εἴη, ἔστι γὰρ αὕτη ἡ εὐπραξία τέλος. Λείπεται ἕρα αὐτὴν εἶναι ἔξις ἀληθοῦς μετὰ λόγου πρακτικῇ περὶ τὰ ἀνθρώπων ἀγαθὰ καὶ κακά. Διὰ τοῦτο Περικλῆς,*" κ. τ. λ.

to be *ἔξις πρακτικὴ τοῦ καλοῦ*. But if this be so, the difference between *φρόνησις* and *ἀρετὴ ἠθικὴ* will be simply this, that the one is *ἔξις πρακτικὴ*, and the other is *ἔξις προαιρετικὴ*. The one, therefore, is virtue in *action*, the other is virtue in *emotion*. The one fixes the attention on the motive, the other fixes it upon the act. The one takes a view of the means, the other regards the end. The one looks to the rational aspect of virtue, and the other to the emotional. But motive and act, end and means, reason and emotion, are indissolubly united in our nature, and it is only by a logical distinction that they can be viewed as separate. The circumference has its convex and its concave side; but convex and concave cannot exist apart, and it is their co-existence that forms the mathematical conception.

This will be still more clearly apparent if we consider the nature of *προαίρεσις*, which Sir Alexander regards as inconsistent with the conception of *φρόνησις*. *Προαίρεσις* is defined *βουλευτικὴ ὁρεξις* (iii. 3). Here reason and emotion, means and end, are again in equipoise and ready to result in act. The moral *προαίρεσις*, therefore, is neither rational nor emotional, but both. It may either be regarded as reason animated by emotion, or as emotion governed by reason. It is, accordingly, either *ὁρεκτικὸς νοῦς*, or *διανοητικὴ ὁρεξις* (vi. 2). In other words, it is the function of the faculty which Butler, in his Dissertation on the Nature of Virtue, calls Conscience, Moral Reason, Moral Sense, or Divine Reason, "whether considered as a sentiment of the understanding, or as a perception of the heart, or, which seems the truth, as including *both*."⁴

⁴ It has been suggested by the Bishop of Killaloe that the words "sentiment" and "perception" have here been interchanged. But a sentiment of the understanding was a usual phrase in Butler's time. The headings of the

various chapters in Reid's Essays show this. He speaks of the "sentiments of Mr. Hume on the subject of Ideas," "the sentiments of Mr. Locke," the "sentiments of Bishop Berkeley," and so on.

The fact of the case is, that what Aristotle calls virtue, ἀρετὴ ἠθικὴ, and what he calls prudence, φρόνησις, are one and the same thing in different aspects. The one regards the end, the other regards the means. The one regards the motive, the other regards the act. The one regards the machine in its passive perfection; the other regards the machine at work. The two are indissolubly united with each other. Virtue without prudence, to adopt a Kantian distinction, would be blind; prudence without virtue would be void. Prudence is reason directed to virtuous ends; virtue is virtuous disposition with reason to deliberate upon the means. The one is the concave, the other the convex of the circumference of morality. In the words of Aristotle himself: συνέζευκται δὲ καὶ ἡ φρόνησις τῇ τοῦ ἡθους ἀρετῇ καὶ αὐτῇ τῇ φρονήσει εἴπερ αἱ μὲν τῆς φρονήσεως ἀρχαὶ κατὰ τὰς ἠθικὰς εἰσιν ἀρετὰς, τὸ δὲ ὀρθὸν τῶν ἠθικῶν κατὰ τὴν φρόνησιν (x. 8).

Such is the outline—inadequate, indeed, but suggestive enough to all those who have any sympathy with the subject—of the first and greatest of all treatises on morals. There is no topic of moral interest which it pretermits. Reason and Propension, Happiness and Pleasure, Virtue and Self-Love, Habit, Education, Will—are all in turns discussed. All, too, are discussed in their relative position and in their mutual regards. The treatise is a moral system. If there is any one topic which would seem to be omitted, and which certainly is not adequately discussed, it is the great and still disputed problem which is generally identified with the name of Bentham, but which had been elaborately discussed by the unhappy author of the *Essays on the Characteristics*—Brown—and had been made the basis of a system by David Hume. And yet it would be strange if the moralist who begins and ends his great treatise with the proposition that happiness is the end of human action should have entirely ignored the question

of the relation between happiness and morality. That all right actions are, as a matter of fact, productive of happiness is generally admitted: the question is whether a perception of the consequences of our acts is necessary for the formation of the conception of duty and of right. Brown, before Bentham, defining virtue to be "the voluntary production of the greatest happiness," presents his theory with great felicity of illustration. At the sight of the variety of colours and magnificence of form which appear in an evening rainbow, he says, the uninstructed in philosophy would regard the splendid object as possessed of a self-originated and independent beauty. But its place and appearance vary with the situation of the sun, and even so the beauty of morality varies with the consequences of our acts. The question thus raised by Brown must be regarded as to the present moment unsettled. The advocates of Eudaemonism, as it is barbarously styled, have generally denounced the theory of the moral sense as a superstition or a dream: the advocates of the moral sense have in their turn denounced the reference to happiness as a degradation of morality—as a detraction from the eternal and immutable nature of its distinctions. Then, writers who, like Mackintosh, contend for the existence of a moral sense, and admit the existence of a criterion of morality, divorce the two, and leave their mutual relation unexplained. The true explanation, and the only one which can reconcile the claims of the contending schools, would seem obvious enough, and yet has never been developed. As the idea of Cause would never be evolved without the perception of change, so the idea of Right would never be evolved without the previous perception of the consequences of the act. The perception of consequence, like the perception of change, is a mere perception: the idea of right, like the idea of cause, is a conception of the reason. But reason is not less reason because it is dependent

for its development on sense: morality is not less morality because it presupposes a perception of consequences as what M. Cousin would call its chronological condition. It is by this compromise alone that the followers of Kant and the followers of Bentham can be brought to terms. But the elaboration of this idea would be a new theory of morals, and this is not the place for such an elaboration. It is sufficient to observe, that in all the higher schools of the ancient world this connexion between the two elements was fearlessly admitted. "What do you say to this?" says Socrates to Polus in the *Gorgias*. "Beautiful things in general, such as bodies, colours, forms, sounds, and pursuits—do you call them severally beautiful without reference to anything else? As, for instance, with respect to beautiful bodies, do you not say they are beautiful on account of their usefulness, in reference to the particular thing for which each is useful, or on account of some pleasure, if in being seen they give delight to the beholders?" and is it not the same, he asks, with reference to forms and colours, with reference to sounds and everything that relates to music—with reference to law, and all the various pursuits of man? The solution which Plato gives to the objections which might be raised against the community of women established in his imaginary commonwealth is embraced in the comprehensive formula, κάλλιστα γὰρ δι' τοῦτο καὶ λέγεται καὶ λελέξεται ὅτι τὸ μὲν ὠφέλιμον καλὸν, τὸ δὲ βλαβερὸν αἰσχρόν. Even Zeno, with all his moral elevation and moral rigour, according to Sextus Empiricus, entertained the same opinion: φασὶν οὖν οἱ Στωϊκοὶ ἀγαθὸν εἶναι ὠφέλειαν ἢ οὐκ ἕτερον ὠφελίας, ὠφέλιμον μὲν λέγοντες τὴν ἀρετὴν καὶ τὴν σπουδαίαν πράξιν (*Sext. Emp.*, l. iii., c. 29). It would be strange if no intimation of the same opinion were to be found in Aristotle, and if the great practical philosophers were silent on this, the highest question of practical morality. He constantly employs utility as the standard, by a

reference to which we may determine which is most to be avoided in any particular case—the excess or the defect : *ὁ μὲν ὠφελεῖ πολλούς* (iv. 1) ; *τὸ μήτε βλαβεραὶ τῷ πέλας εἶναι* (iv. 2) ; *χειρόν ἐστι* (iv. 3). It is true he tells us that justice alone of all the virtues is *ἀλλότριον ἀγαθόν*—*πρὸς ἑτερόν ἐστι* (v. 1). But he has stated in the immediate context that justice, in its highest sense, is that which promotes and preserves the general happiness in the social state : *τὰ ποιητικὰ καὶ φυλακτικὰ τῆς εὐδαιμονίας καὶ τῶν μορίων αὐτῆς τῇ πολιτικῇ κοινωνίᾳ* (v. 1) ; that it is the highest virtue, not only because it is the exercise of the highest excellence, but because it is its exercise for the benefit of others ; that it thus comprehends every form of virtue (*συλλήβδην πᾶς ἀρετὴ ἐνι*), and is more wondrous than either the evening or the morning star (*οὐθ' ἔσπερος οὐθ' ἑῷος οὕτω θαυμαστός*). In that masterly disquisition on the difference between selfishness and self-love, which leaves nothing to be gainsaid and nothing to be said, he proclaims that the good man is the true lover of himself (*φίλαυτος*), for he appropriates to himself the highest and the noblest good, and gratifies the highest and noblest part of his nature, which, like the paramount authority in the state, constitutes at once the system and the man : *χαρίζεται ἑαυτοῦ τῷ κυριωτάτῳ, καὶ πάντα τούτῳ πείθεται, ὥσπερ δὲ καὶ πόλις, κ. τ. λ.* Nay, in point of morals he ought to be a lover of himself, for thus he will not only himself enjoy the high delights of virtue, but will be a source of benefit to others (*καὶ γὰρ αὐτὸς ὀνήσεται τὰ καλὰ πράττων καὶ τοὺς ἄλλους ὠφελήσει*). For it is a truth not to be denied, that a noble man (*σπουδαῖος*), for the good of his friends and of his country, will not even fear to die ; he will sacrifice wealth and honours, and all those advantages for which meaner minds contend (*περιμάχῃτα ἀγαθὰ*), and will arrogate to himself the glory of virtue (*περιποιούμενος ἑαυτῷ τὸ καλόν*) ; for he will prefer the ecstasy of one noble

moment to a life of ignoble pleasures, one year of glory to an age of ordinary mortals, and rather perform one great and noble deed than fritter away his existence in the pursuit of trifles: ὀλίγον γὰρ χρόνον ἡσθῆναι σφόδρα μᾶλλον ἔλατ' ἐν ἡ πολὺν ἡρέμα, καὶ βιώσαι καλῶς ἐν αὐτὸν ἢ πόλλ' ἔτη τυχόντως, καὶ μίαν προὔξιν καλὴν καὶ μεγάλην ἢ πολλὰς καὶ μικράς (ix. 8). Such is the philosophy which, according to Cicero, makes virtue a mere moderation in vice; such is the heroic ideal of the philosopher who is said to be the patron of the *modice adulter*.

The enunciation of views like these is sufficient to show how great is the error of those who identify the Utilitarian with the Selfish theory of morals, and confound the theory of the greatest happiness with the theory of Epicurus. Reducing all motives to the desire of selfish happiness, and concentrating even selfish happiness in the gratification of corporeal sense, the Epicureans, whether Epicureans of the Garden, or Epicureans of the Stye, in reality truncated human nature and degraded human action. Against such doctrines the Ethics are a standing protest. Aristotle recognised the existence of the appetites of sense, and made their decent satisfaction the necessary condition of all higher developments. But he admits the existence of desires of fame, and glory, and knowledge, that soared far above the regions of sense: he admits the existence of benevolent affections, that transcend the desires: he admits the existence of a principle that claims to be predominant over affections, passions, and appetites alike. As emanating from sense, all our propensions are equally selfish; as directed towards something external to ourselves, they are equally unselfish. Aristotle, accordingly, never indulges in the inaccuracy of thought which has introduced such confusion into modern speculation, and never speaks of selfish affections. Selfish and disinterested affections. Selfish and disinterested affections.

but to our actions. Even with respect to actions, the question of the inherent selfishness of human nature may be narrowed to a point. Take any action which is not instinctive—any action performed consciously (*μετὰ λόγον*), and in accordance with reason (*κατὰ λόγον*). It must be performed either to escape a self-annoyance, or to procure self-gratification, or to promote self-interest, or to perform a duty. The three first are self-regarding motives, and the action proceeding from them is in that sense selfish. Is the performance of an act of duty (*ὅτι καλόν*) of the same character? If it is performed merely for the pleasure it gives, it clearly is. But is it possible to perform an act of duty which has no effect upon our own happiness whatsoever, and as far as we are concerned is perfectly indifferent—to perform it as duty, and *ὅτι καλόν*? That question Aristotle seems never to have contemplated; to that question he supplies no answer. He seems to conceive that the pleasure of a virtuous action is the only motive to a virtuous man. The pleasure of the act is the test of the perfection of the habit. Like the bloom upon the face of youth, it is the irradiation (the *aura*) of virtue. It is curious to observe how completely Aristotle has anticipated some of the most recondite of the mysteries of metaphysics. Take, for instance, the relation between faith and works, which has agitated the theological world from the days of the Apostles. Take it in the form of the Antinomian heresy, as enounced by the Independent to Phoebe Mayflower at the fountain, in the romance of Scott: “Stand up, foolish maiden, and listen,” says the libidinous saint, “and know, in one word, that sin, for which the spirit of man is punished with the vengeance of heaven, lieth not in the corporal act, but in the thought of the sinner.” Aristotle discusses the very question. If virtue consists in a disposition of the mind, says an objector, may not the virtuous man be guilty of adultery, cowardice, oppression, and injustice, since

vice consists, not in the material act, τὸ ταῦτα ποιεῖν, but in the mental disposition, τὸ ὧδε ἔχοντα ταῦτα ποιεῖν (v. 9)? But Aristotle's answer is that of the Apostle, "Show me thy faith without thy works, and I will show thee my faith by my works." Virtue, it is true, is a habitual disposition, but it is a habitual disposition which necessarily prompts to virtuous action, πράξει γὰρ ἐξ ἀνάγκης καὶ εὖ πράξει (i. 9).

The works of Aristotle are like the Colosseum—modern philosophers have stolen its marbles to erect their houses. The extent to which Butler was indebted to Aristotle for his general system has been already pointed out. His theory of Self-love is equally Aristotelic; and his celebrated Sermons on Resentment and Forgiveness are little more than an amplification of Aristotle's chapter on Anger and the virtue which he calls *πραότης*, and which is so near an approach to the Long-suffering of Christian ethics. *Ἀσργησία* is, with Aristotle as well as Butler, an *ἔλλειψις*. With both, anger is *τιμωρητικός* and *ἀμυντικός*. Hume is a still more glaring plagiarist. "I must not dismiss this subject," says Mr. Stewart, "without taking some notice of a theory *started* by Mr. Hume with respect to the origin of the Love of Praise"—the theory that "it is in order to fix and confirm their favourable opinion of themselves, not from any original passion, that mankind seek the applause of others" (Diss. on Passions, ii. § x.) Mr. Hume, however, did nothing but steal the theory from Aristotle, and spoil it in the stealing. Aristotle, with that comprehensive and yet discriminating view—that eagle vision of intellect, in which he has never been rivalled except by Bacon—saw clearly that praise is desired for a variety of causes. In the first place he saw that we love it for its own sake as an original principle in human nature (*μηδενὸς γὰρ ἀποβαίνοντος ἐλοίμεθ' αὖν*, i. 5). He saw that it was not only the highest of external goods, and was sought for the other advantages which

it brings (οἶονται γὰρ τεύξεσθαι παρ' αὐτῶν ἅν του δέωνται, viii. 10); but he saw also that men desired praise to assist their belief in their own goodness (ἵνα πιστεύωσιν ἑαυτοὺς ἀγαθοὺς εἶναι, i. 3), to fix and confirm their favourable opinion of themselves (βεβαιῶσαι τὴν οἰκείαν δόξαν ἐφίενται περὶ αὐτῶν, viii. 9)—the very words of Hume, except that Aristotle rejects Hume's superadded theory that it is an original passion, just as he rejects the theory of Torquatus in the *De finibus*, that praise is only sought for the external advantages which it brings.

It would extend this paper beyond all reasonable proportions if I were to prosecute an inquiry which, nevertheless, I will venture to suggest. It is matter of common knowledge that St. Paul was familiar with the Greek poets. Was he not equally familiar with the Greek philosophers? In the Schools at Tarsus, Plato and Aristotle could not have been unfamiliar names; and the Epicurean and Stoic philosophies could scarcely have been a sealed book to the first Apostle who rose to the height of the greatest argument, when "certain philosophers of the Epicureans and of the Stoicks encountered him" upon the Hill of Mars. When he spoke of those "who, knowing the judgment of God, that they which commit such things are worthy of death, not only do the same, but have pleasure in them that do them," was there no latent association of the ἐπιχαιρεκακία of the grand old Pagan? When he spoke of the Gentiles who, "having not the law, are a law unto themselves," was it mere chance coincidence that he reproduced the νόμος ὧν ἑαυτῶν which constitutes the law of the heathen idea of the gentleman? When he saw "another law in his members warring against the law of his mind" (Rom. vii. 23), was he ignorant of that ἄλλο τι παρὰ τὸν λόγον πεφυκὸς δὲ μάχεται τε καὶ ἀντιτείνει τῷ λόγῳ (i. 13) which had attracted the attention of the uninspired philosopher? When he found that when "he would do

good, evil was present with him" (v. 21), had he no unconscious recollection of him who had compared the imbecility of the human will to the paralysed limbs of the human body, which, when we willed it go to the right goes to the left (εἰς τὰ δεξιὰ προαιρουμένων κινῆσαι τοῦναντίον εἰς τὰ ἀριστερὰ παραφέρεται, i. 13)? When the Apostle, abandoning the old dogma that reward and punishment were equally sanctions of the law, proclaims that rulers are a terror to evil-doers, a praise to them that do well (xiii. 3), is it to be remarked as a mere chance that Aristotle had said of the magistrates, *κολάζουσι καὶ τιμωροῦνται τοὺς δρώντας μοχθηρὰ . . . τοὺς δὲ τὰ καλὰ πράττοντας τιμῶσι* (iii. 5)?

THOMAS E. WEBB.

BISHOP BUTLER AND MR. MATTHEW
ARNOLD: A NOTE.

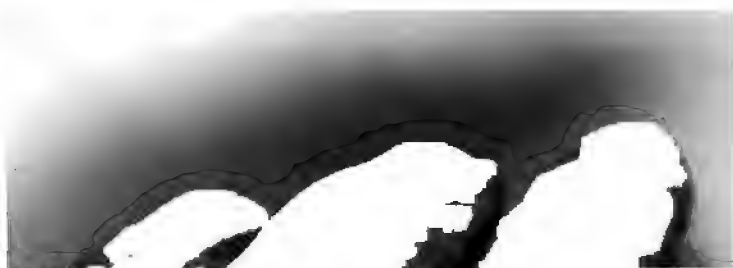
IN the first of two interesting papers by Mr. Matthew Arnold, entitled "Bishop Butler and the Zeit-Geist," which appeared in the "Contemporary Review," February and March, 1876, the following passage occurs:—

"Mr. Pattison [in 'Essays and Reviews'], in my opinion, has almost certainly put his finger on the determining cause of the 'Analogy's' existence:—"At the Queen's philosophical parties, where these topics were canvassed with earnestness and freedom, Butler must often have felt the impotence of reply in detail, and seen, as he says, 'how impossible it must be, in a cursory conversation, to unite all in one argument, and represent it as it ought to be.'"
That connexion of the 'Analogy' with the Queen's philosophical parties seems to me an idea inspired by true critical genius. These parties, given by Queen Caroline, a clever and strong-minded woman, the recluse and grave Butler had, as her Clerk of the Closet, to attend regularly. Discussion was free at them, and there Butler, no doubt, heard in abundance the talk of what is well described as the 'loose kind of deism which was the then tone of fashionable circles.' The 'Analogy,' with its peculiar strain and temper, is the result."

The object of the present Note is to point out that the idea here attributed to the "critical genius" of the Rector of Lincoln is at variance with known facts and dates. The "Analogy" was published in 1736. The advertisement

prefixed to the first edition bears the date of May in that year. "Early in the summer of 1736," says Bartlett, "Her Majesty appointed him [Butler] her Clerk of the Closet." Thus the book was not only written, but printed, before he obtained the appointment. It is certain, therefore, that his observations made in the capacity of Clerk of the Closet had nothing whatever to do with the "peculiar strain and temper" of the "Analogy." It has always been believed that the foundations of that great work were laid, and a large part of it completed, during its author's years of retirement at Stanhope, from 1726 to 1733.

JOHN KELLS INGRAM.



ON THE DETERMINATION OF THE LINEAR FACTORS OF THE BINARY QUARTIC $\alpha U + \beta H$, WHERE $U \equiv (a, b, c, d, e)(x, y)^4$ AND H IS THE HESSIAN OF U .¹

IT is convenient to enunciate the following Lemmas which have an immediate application to the present question :—

LEMMA I.

If X, Y, Z be three quadratics satisfying the harmonic relation $a_p c_q + a_q c_p - 2 b_p b_q = 0$ two and two, the condition that $lX + mY + nZ$ is a perfect square reduces in this case to $l^2 \Delta_1 + m^2 \Delta_2 + n^2 \Delta_3 = 0$, where $\Delta_1, \Delta_2, \Delta_3$ are the discriminants of X, Y, Z , respectively.

LEMMA II.

Under the same conditions X, Y, Z satisfy the identical relation

$$\frac{X^2}{\Delta_1} + \frac{Y^2}{\Delta_2} + \frac{Z^2}{\Delta_3} \equiv 0.$$

To apply these Lemmas to the determination of the factors of $\alpha U + \beta H$: we may, from the theory of the quartic, put

$$\lambda U - H \equiv X^2$$

$$\mu U - H \equiv Y^2$$

$$\nu U - H \equiv Z^2,$$

¹ The reader is referred to the following Papers on this subject :—"Mathematische Annalen," vol. i., p. 54—Cayley; "Quarterly Journal," vol. x. p. 211—Burnside; "Liouville's Journal" (2), vol. xviii., p. 220—Darboux; "Theorie Der Binären Formen," p. 156—Clebsch.

where λ, μ, ν are the roots of the equation $4\rho^3 - I\rho + J = 0$,

$$I = ae - 4bd + 3c^2; \quad J = ace + 2bcd - ad^2 - eb^2 - c^3;$$

whence the identical relation between X, Y, Z is at once seen to be

$$(\mu - \nu) X^2 + (\nu - \lambda) Y^2 + (\lambda - \mu) Z^2 = 0;$$

and comparing with the former relation (Lemma II.), we find that

$$\Delta_1(\mu - \nu) = \Delta_2(\nu - \lambda) = \Delta_3(\lambda - \mu).$$

Again, the condition that $lX + mY + nZ$ be a perfect square (Lemma I.) becomes, in virtue of the last equations,

$$\frac{l^2}{\mu - \nu} + \frac{m^2}{\nu - \lambda} + \frac{n^2}{\lambda - \mu} = 0;$$

and this equation is satisfied by the following values for l, m, n :

$$l = (\mu - \nu) \sqrt{a - \lambda\beta}$$

$$m = (\nu - \lambda) \sqrt{a - \mu\beta}$$

$$n = (\lambda - \mu) \sqrt{a - \nu\beta},$$

α, β being arbitrary; and consequently $lX + mY + nZ$,
or

$$(\mu - \nu) \sqrt{a - \lambda\beta} \sqrt{H + \lambda U} \pm (\nu - \lambda) \sqrt{a - \mu\beta} \sqrt{H + \mu U} \\ \pm (\lambda - \mu) \sqrt{a - \nu\beta} \sqrt{H + \nu U}$$

is a perfect square; and moreover it vanishes when $\alpha U + \beta H$ vanishes, and is therefore the general expression for the square of the linear factors of $\alpha U + \beta H$.

WM. SNOW BURNSIDE.

THE PROPERTIES OF THE CARTESIAN OVAL TREATED GEOMETRICALLY.

1. **T**HE Cartesian Oval, since its original discussion by Descartes, has always had a special interest for Mathematicians. This interest has in recent years increased, more especially since the valuable Papers of M. Quetelet on the Theory of Secondary Caustics (*Nouv. Mem. de l'Académie Royale de Brux.* Tomes iii., v., 1827, 1829, and the important discovery by M. Chasles of the existence of a third focus to the curve (*Aperçu Historique*, note xxi., p. 352). These have been followed by several important Papers on the properties of the curve, by Mr. Cayley (*Liouville's Journal*, tome xv., 1850), Sig. Genocchi (*Tortolini*, 1864), Mr. Crofton (*London Mathematical Society*, 1866), Mr. Casey (in his valuable and exhaustive treatise on *Bicircular Quartics*, *Trans. R. I. Acad.*, 1869), and others.

In the present Paper it is proposed to show that the principal fundamental properties of the Cartesian Oval hitherto arrived at can be readily established from geometrical considerations.

2. I commence by writing the equation of the curve in its usual form, viz.,

$$r_1 \pm \mu r_2 = a, \tag{1}$$

where r_1 and r_2 represent the distances of any point on the curve from two fixed points, or foci, F_1 and F_2 , while μ and a are constants, of which we may assume that μ is less than unity. We also assume that a is greater than $F_1 F_2$, the distance between the fixed points.

It is easily seen that the curve consists of two ovals, one lying inside the other; the former corresponding to the equation $r_1 + \mu r_2 = a$, and the latter to $r_1 - \mu r_2 = a$. Now, with F_1 as centre, and a as radius, describe a circle. Through F_2 draw any chord DE , and join F_1D and F_1E ; then, if P be the point in which F_1D meets the inner oval, we have

$$PD = a - r_1 = \mu r_2 = \mu PF_2.$$

From this relation the point P can be readily found.

Again, let Q be the corresponding point for the outer oval, $r_1 - \mu r_2 = a$; and we shall have, in like manner, $DQ = \mu F_2Q$;

$$\therefore F_2Q : F_2P = QD : DP;$$

consequently, F_2D bisects the angle PF_2Q .

Produce QF_2 and PF_2 to intersect F_1E , and let P_1 and Q_1 be the points of section.

Then, since the triangles PF_2D and P_1F_2E are equiangular, we have $P_1E = \mu P_1F_2$; and consequently, the point P_1 lies on the inner oval. In like manner it is plain that Q_1 lies on the outer.

It is obvious that the inner oval lies altogether inside, and the outer oval altogether outside the circle in our construction.

3. Again, by an elementary theorem in geometry, we have

$$F_1P \cdot F_1Q = PD \cdot DQ + F_1D^2,$$

$$\therefore (1 - \mu^2) F_1P \cdot F_1Q = F_1D^2.$$

Also, by triangles, we get

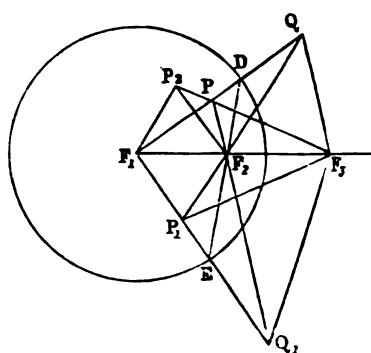


Fig. 1.

$$F_2P : F_2P_1 = F_2D : F_2E;$$

consequently

$$(1 - \mu^2) F_2Q \cdot F_2P_1 = F_2D \cdot F_2E = \text{const.} \quad (2)$$

Therefore, the rectangle under F_2Q and F_2P_1 is constant; a theorem due to M. Quetelet.

4. Next, draw QF_2 , making $\angle F_2QF_3 = \angle F_2F_1P_1$; then, since the points P_1, F_1, Q, F_3 lie on the circumference of a circle, we get

$$F_1F_2 \cdot F_2F_3 = F_2Q \cdot F_2P_1 = \text{const.} \quad (3)$$

Hence the point F_3 is determined.

5. We next proceed to show that F_3 possesses the same properties relative to the curve as F_1 and F_2 ; in other words, that F_3 is a third focus.

For this purpose it is convenient to write the equation of the curve in the form

$$mr_1 \pm lr_2 = nc, \quad (4)$$

in which c represents F_1F_2 , and l, m, n are constants.

It may be observed that in this case we have $n > m > l$.

Now, since $\angle F_1F_2Q = \angle F_1P_1F_2 = \angle F_1PF_3$, the triangles F_1PF_3 and F_1F_2Q are equiangular; but, by (4), we have

$$mF_1P + lF_2P = nF_1F_2;$$

accordingly we have

$$mF_1F_3 + lF_3Q = nF_1Q,$$

or

$$nF_1Q - lF_3Q = mF_1F_3;$$

i.e., denoting the distance from F_3 by r_3 , and F_1F_3 by c_3 ,

$$nr_1 - lr_3 = mc_3.$$

This shows that the distances of any point on the outer oval from F_1 and F_3 are connected by an equation similar

in form to (4); and, consequently, F_3 is a *third focus of the curve*.

In like manner, since the triangles F_1QF_2 and F_1F_2P are equiangular, the equation

$$m F_1Q - l F_2Q = n F_1F_2$$

gives

$$m F_1F_2 - l F_2P = n F_1P.$$

Hence, for the inner oval, we have

$$nr_1 + lr_2 = mc_1.$$

This, combined with the preceding result, shows that the conjugate ovals of a Cartesian, referred to its two extreme foci, are represented by the equation

$$nr_1 \pm lr_2 = mc_1. \quad (5)$$

In like manner, since the triangles $F_1P_1F_2$ and F_2F_3Q are equiangular, we get for the equation of the outer oval, referred to the foci F_2 and F_3 ,

$$nr_2 - mr_3 = lc_1,$$

where $c_1 = F_2F_3$: and it is easily seen that the inner oval is represented by

$$mr_3 - nr_2 = lc_1.$$

Consequently, the conjugate ovals referred to the foci F_2 and F_3 are comprised under the equation

$$nr_2 - mr_3 = \pm lc_1. \quad (6)$$

6. The equation connecting the constants l , m , n , in a Cartesian which has three points F_1 , F_2 , F_3 , for its foci, can be readily found.

For, if we substitute in (3), c_2 for F_1F_2 , &c., the equation is reduced to the form

$$l^2c_1 + n^2c_2 = m^2c_3;$$

Or

$$l^2 F_1 F_2 + m^2 F_2 F_1 + n^2 F_1 F_2 = 0, \quad (7)$$

in which the lengths $F_1 F_2$, &c., are taken with their proper signs, viz., $F_2 F_1 = -F_1 F_2$, &c.

7. Next, since the four points F_1, P, Q, F_2 , lie in a circle, we have

$$F_1 P \cdot F_1 Q = F_1 F_2 \cdot F_1 F_2 = \text{const.} \quad (8)$$

Consequently the two conjugate ovals are inverse to each other with respect to a circle¹ whose centre is F_1 , and whose radius is a mean proportional between $F_1 F_2$ and $F_1 F_2$.

It follows immediately from this, since F_2 lies inside both ovals, that F_1 lies outside both. It hence may be called the external focus. This is on the supposition that the constants² are connected by the relations $n > m > l$.

8. Also, we have

$$\angle PF_1 F_2 = \angle PQF_2 = \angle F_2 Q_1 P_1 = \angle F_2 F_1 P_1;$$

hence the lines $F_2 P$ and $F_2 P_1$ are equally inclined to the axis $F_1 F_2$. Consequently, if P_2 be the second point in which the line $F_2 P$ meets the inner oval, it follows, from the symmetry of the curve, that the points P_2 and P_1 are the reflections of each other with respect to the axis $F_1 F_2$, and

¹ It is easily seen that when $l = 0$ the Cartesian whose foci are F_1, F_2, F_3 , reduces down to this circle.

Again, if $n = 0$, the Cartesian becomes another circle, whose centre is F_2 , and which, as shall be presently seen, cuts orthogonally the system of Cartesians, which has F_1, F_2, F_3 for their foci. These circles are called by Prof. Crofton the *Confocal Circles* of the Cartesian system.

² From the above discussion it will appear, that if the general equation of a Cartesian be written

$$\lambda r + \mu r' = \nu c,$$

where c represents the distance between the foci; then, (1) if, of the constants, λ, μ, ν , the greatest be ν , the curve is referred to its two internal foci; (2) if ν be intermediate between λ and μ , the curve is referred to the two extreme foci; (3) if ν be the least of the three, the curve is referred to the external and middle focus; (4) if $\lambda = \mu$, the curve is a conic; (5) if $\nu = \lambda$, or $\nu = \mu$, the curve is a limaçon.

the triangles $F_1P_1F_2$ and $F_1P_2F_2$ are equal in every respect.

Again, since $\angle F_2PF_1 = \angle F_2QF_1 = \angle F_2F_1P_1$, the four points P , P_1 , F_1 and F_2 lie on the circumference of a circle.

From this we have

$$F_2P \cdot F_2P_1 = F_2F_1 \cdot F_1F_2 = \text{constant.}$$

Hence, *the rectangle under the segments, made by the inner oval, of any transversal from the external focus is constant.*

In like manner it can be shown that the same property holds for the segments made by the outer oval.

If we suppose P and P_1 to coincide, the line F_2P becomes a tangent to the oval, and the length of this tangent becomes constant, being a mean proportional between F_2F_1 and F_1F_2 .

Accordingly, the tangents drawn from the external focus to a system of triconfocal Cartesians are of equal length.

This result may be otherwise stated, as follows:—*A system of triconfocal Cartesians are cut orthogonally by the confocal circle whose centre is the external focus of the system* (Prof. Crofton).

This theorem is a particular case of another—also due, I believe, to Prof. Crofton—which shall be proved subsequently, viz., that if two *triconfocal* Cartesians intersect, they cut each other orthogonally.

9. We next proceed to give a geometrical method of drawing the tangent and the normal at any point on a Cartesian.

Adopting the same notation as before, let R be the point in which the line F_2D meets the circle which passes through the points P , F_2 , F_1 , Q ; then it can be shown that the lines PR and RQ are the normals at P and Q

to the Cartesian oval, which has F_1 and F_2 for its internal

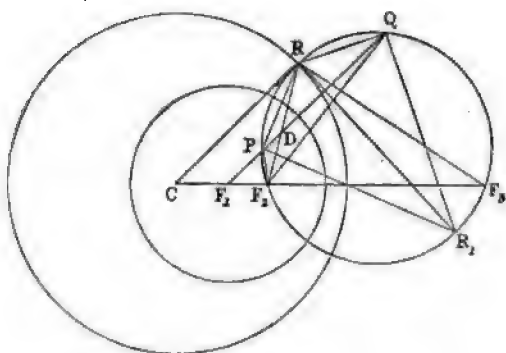


Fig. 2.

foci, and F_3 for its external. For, from equation (4) we have for the outer oval,

$$m \frac{dr_1}{ds} - l \frac{dr_2}{ds} = 0.$$

Hence, if ω_1 and ω_2 be the angles which the normal at Q makes with QF_1 and QF_2 respectively, we have

$$m \sin \omega_1 = l \sin \omega_2; \text{ or } \sin \omega_1 : \sin \omega_2 = l : m. \quad (9)$$

Again, we have seen at the commencement that

$$l : m = DQ : F_2Q.$$

Also, by similar triangles,

$$RQ : RF_2 = DQ : F_2Q = l : m. \quad (10)$$

But

$$RQ : RF_2 = \sin RQP : \sin RQF_2;$$

hence,

$$\sin RQF_1 : \sin RQF_2 = l : m.$$

Consequently, by (9), the line RQ is the normal at Q to the outer oval. In like manner it follows immediately that PR is normal to the inner oval.

This theorem is given by Prof. Crofton (Memoir, p. 10),

in the following form :—*The arc of a Cartesian oval makes equal angles with the right line drawn from the point to any focus, and the circular arc drawn from it through the two other foci.*

This result furnishes an easy method of drawing the tangent at any point on a Cartesian whose three foci are given.

The construction may be exhibited in the following form :—

Let F_1, F_2, F_3 be the three foci, and P the point in question. Describe a circle through P and two foci F_1 and F_2 , and let Q be the second point in which F_1P meets this circle; then the line joining P to R , the middle point of the arc cut off by PQ , is the normal in question.

It is plain, for the same reason, that the line drawn from P to R_1 , the middle point of the other segment standing on PQ , is normal to a second Cartesian passing through P , and having the same three points as foci.

Hence it follows that *through any point two Cartesian ovals can be drawn having three given points—which are in directum—for foci.*

Also the two curves so described cut orthogonally.

10. Again, if RC be drawn touching the circle PRQ , it is parallel to PQ , and hence

$$F_2C : F_1C = F_2R : RD = F_2R^2 : F_1R \cdot RD;$$

but

$$F_1R \cdot RD = RP^2,$$

$$\therefore F_2C : F_1C = F_2R^2 : PR^2 = m^2 : l^2. \quad (11)$$

Hence the point C is fixed.

Again

$$CR : F_1D = RF_1 : DF_1 = m^2 : m^2 - l^2.$$

$$\therefore CR = \frac{m^2 a}{m^2 - l^2}, \quad (12)$$

which determines the length of CR .

11. Next, since $RP = RQ$, if with R as centre and RP as radius a circle be described, it will touch each of the ovals, from what has been shown above.

Also, since C is a fixed point by (11), and CR a constant length by (12), it follows that the *locus of the centre of a circle which touches both branches of a Cartesian is a circle* (Quetelet).

This construction is shown in the following figure, in which the form of two conjugate ovals, having the points F_1, F_2, F_3 for foci, is exhibited.

Again, since the ratio of F_1R to RP is constant, we get the following theorem, which is also due to M. Quetelet:—

A Cartesian oval is the envelope of a circle, whose centre moves on the circumference of a given circle, while its radius is in a constant ratio to the distance of its centre from a given point.

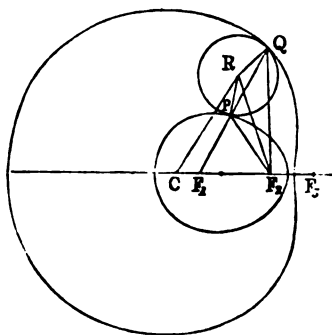


Fig. 3.

12. This construction has been given in a different form by Professor Casey, viz. :—

If a circle cut a given circle orthogonally, while its centre moves along another given circle, its envelope is a Cartesian oval.

This follows immediately; for the rectangle under F_1P and F_1Q is constant, by (8), and therefore the length of the tangent from F_1 to the circle is constant.

³ It is easily seen that the three foci limiting points of this and the other fixed circle. of the Cartesian envelope are: the centre of the orthogonal circle, and the

This result is given by Prof. Casey as a particular case of a general and elegant property of bicircular quartics, viz. : if, in the preceding construction, the centre of the moving circle describe any conic, instead of a circle, its envelope is a bicircular quartic.

For additional information on Cartesians, as well as on the more general properties of bicircular quartics, the student is referred to the different Memoirs mentioned at the beginning of this Paper : more especially to that of Professor Casey.

BENJAMIN WILLIAMSON.

ON A CLASS OF PROBLEMS CONNECTED WITH LINEAR DIFFERENTIAL EQUATIONS.

[I am indebted to Professor Roberts' instructive Lectures for my knowledge of some of the Theorems quoted in the following paper.]

IN the theory of Algebraic Equations there is an interesting class of problems, viz., "Being given an equation, to find another of which the roots are certain functions of the roots of the first." My object in the present Paper is to consider an analogous class of problems in the theory of Linear Differential Equations.

The first problem I treat of is—

"If the solution of the linear differential equation

$$\frac{d^2y}{dx^2} + P \frac{dy}{dx} + Qy = 0 \quad (1)$$

is

$$y = C_1y_1 + C_2y_2,$$

where y_1 and y_2 are functions of x , and C_1, C_2 arbitrary constants, to find the differential equation of which the solution is

$$y = \frac{Ay_1 + By_2}{Cy_1 + Dy_2},$$

A, B, C, D being arbitrary constants."

The required equation is evidently the result of eliminating u and v between the equations

$$\frac{du}{dx^2} + P \frac{du}{dx} + Qu = 0$$

$$\frac{d^2v}{dx^2} + P \frac{dv}{dx} + Qv = 0$$

$$y = \frac{u}{v};$$

or of eliminating u between the equations

$$\frac{d^2u}{dx^2} + P \frac{du}{dx} + Qu = 0$$

$$2 \frac{du}{dx} \cdot \frac{dy}{dx} + u \left(\frac{d^2y}{dx^2} + P \frac{dy}{dx} \right) = 0,$$

which evidently may be written

$$\begin{vmatrix} 1, & P, & Q \\ 0, & 2 \frac{dy}{dx}, & \frac{d^2y}{dx^2} + P \frac{dy}{dx} \\ 2 \frac{dy}{dx}, & 3 \frac{d^2y}{dx^2} + P \frac{dy}{dx}, & \frac{d^3y}{dx^3} + P \frac{d^2y}{dx^2} + \frac{dP}{dx} \cdot \frac{dy}{dx} \end{vmatrix} = 0;$$

or, expanding,

$$2 \frac{d^3y}{dx^3} \frac{dy}{dx} - 3 \left(\frac{d^2y}{dx^2} \right)^2 + \left(2 \frac{dP}{dx} + P^2 - 4Q \right) \left(\frac{dy}{dx} \right)^2 = 0. \quad (2)$$

Hence the solution of this equation depends on that of equation (1).

If we wish to find the condition that any two particular solutions of equation (1) should be connected by a relation of the form $y_1 = y_2 \phi(x)$, we need only substitute $\phi(x)$ for y in equation (2); thus the condition that $y_1 = xy_2$ is

$$2 \frac{dP}{dx} + P^2 - 4Q = 0.$$

In a similar manner, if the solution of the linear differential equation

$$\frac{d^3 y}{dx^3} + P \frac{d^2 y}{dx^2} + Q \frac{dy}{dx} + Ry = 0 \quad (3)$$

be

$$y = C_1 y_1 + C_2 y_2 + C_3 y_3,$$

and we wish to find the differential equation of which the solution is

$$y = \frac{Ay_1 + By_2 + Cy_3}{Dy_1 + Ey_2 + Fy_3},$$

we must eliminate u and v , between the equations

$$\frac{d^3 u}{dx^3} + P \frac{d^2 u}{dx^2} + Q \frac{du}{dx} + Ru = 0$$

$$\frac{d^3 v}{dx^3} + P \frac{d^2 v}{dx^2} + Q \frac{dv}{dx} + Rv = 0$$

$$u = yv;$$

or eliminate u between

$$\frac{d^3 u}{dx^3} + P \frac{d^2 u}{dx^2} + Q \frac{du}{dx} + Ru = 0,$$

and

$$3 \frac{d^2 u}{dx^2} \frac{dy}{dx} + \frac{du}{dx} \left(3 \frac{d^2 y}{dx^2} + 2P \frac{dy}{dx} \right) + u \left(\frac{d^3 y}{dx^3} + P \frac{d^2 y}{dx^2} + Q \frac{dy}{dx} \right) = 0.$$

The result is

$$\begin{vmatrix} 1, & P, & \frac{dP}{dx} + Q, & \frac{dQ}{dx} + R, & \frac{dR}{dx} \\ 3 \frac{dy}{dx}, & 6 \frac{d^2 y}{dx^2} + \phi, & 2 \frac{d\phi}{dx} + 3 \frac{d^2 y}{dx^2} + \psi, & \frac{d^2 \phi}{dx^2} + 2 \frac{d\psi}{dx}, & \frac{d^2 \psi}{dx^2} \\ 0, & 1, & P, & Q, & R \\ 0, & 3 \frac{dy}{dx}, & 3 \frac{d^2 y}{dx^2} + \phi, & \frac{d\phi}{dx} + \psi, & \frac{d\psi}{dx} \\ 0, & 0, & 3 \frac{d^2 y}{dx^2}, & \phi, & \psi, \end{vmatrix} = 0, \quad (4)$$

where

$$\phi \equiv 3 \frac{d^2 y}{dx^2} + 2 P \frac{dy}{dx}$$

$$\psi \equiv \frac{d^2 y}{dx^2} + P \frac{d^2 y}{dx^2} + Q \frac{dy}{dx}.$$

If we want to find the condition that two particular solutions of equation (3) should be connected by a relation of the form $y_1 = y_2 \phi(x)$, we have, as before, only to substitute $\phi(x)$ for y in equation (4). If we put $y = x$ we get

$$\begin{vmatrix} 1, & P, & \frac{dP}{dx} + Q, & \frac{dQ}{dx} + R, & \frac{dR}{dx} \\ 3, & 2P, & 4 \frac{dP}{dx} + Q, & 2 \left(\frac{d^2 P}{dx^2} + \frac{dQ}{dx} \right), & \frac{d^2 Q}{dx^2} \\ 0, & 1, & P, & Q, & R \\ 0, & 3, & 2P, & 2 \frac{dP}{dx} + Q, & \frac{dQ}{dx} \\ 0, & 0, & 3, & 2P, & Q \end{vmatrix} = 0$$

as the condition that two particular solutions of equation (3) should be connected by the relation $y_1 = y_2 x$. We can, in precisely a similar manner, solve the general problem: "The solution of the linear differential equation

$$\frac{d^n y}{dx^n} + P_1 \frac{d^{n-1} y}{dx^{n-1}} + P_2 \frac{d^{n-2} y}{dx^{n-2}} \dots + P_n y = 0$$

being

$$y = C_1 y_1 + C_2 y_2 \dots + C_n y_n$$

find the differential equation of which the solution is

$$y = \frac{A_1 y_1 + A_2 y_2 \dots + A_n y_n}{B_1 y_1 + B_2 y_2 \dots + B_n y_n};$$

$A_1, A_2, \dots B_1, B_2, \dots C_1, C_2, \dots$ being arbitrary constants." Hence also we can solve the general problem, "To find the condition necessary that two particular solutions of the

general linear differential equation should be connected by the relation $y_1 = y_2 \phi(x)$."

In the problems already considered the resulting equation has not been linear. I now consider certain cases in which the required equation is linear; the analogy to algebraic equations being now more complete.

For example, if, as before, we take equation (1),

$$\frac{d^2 y}{dx^2} + P \frac{dy}{dx} + Qy = 0,$$

and its solution,

$$y = C_1 y_1 + C_2 y_2,$$

let it be required to find the *Linear* differential equation of which the solution is

$$y = Ay_1^2 + By_1 y_2 + Cy_2^2,$$

A, B, C , being arbitrary constants.

In this case we have to eliminate u and v between the equations

$$\frac{d^2 u}{dx^2} + P \frac{du}{dx} + Qu = 0 \quad (a)$$

$$\frac{d^2 v}{dx^2} + P \frac{dv}{dx} + Qv = 0 \quad (b)$$

$$uv = y. \quad (c)$$

The labour of elimination may be greatly shortened by seeking for a first integral of the sought equation instead of proceeding directly to the equation itself.

Thus, from (a) and (b) we have

$$v \frac{du}{dx} - u \frac{dv}{dx} = e^{-\int P dx},$$

and from (c)

$$v \frac{du}{dx} + u \frac{dv}{dx} = \frac{dy}{dx}.$$

Hence

$$2v \frac{du}{dx} = \frac{dy}{dx} + e^{-\int P dx},$$

or

$$2y \frac{du}{dx} = u \left(\frac{dy}{dx} + e^{-\int P dx} \right).$$

Eliminating between this equation and (a) we obtain

$$\begin{vmatrix} 1, & P, & Q \\ 2y, & \frac{dy}{dx} - e^{-\int P dx}, & -\frac{dy^2}{dx^2} + P e^{-\int P dx} \\ 0, & -2y, & \frac{dy}{dx} + e^{-\int P dx} \end{vmatrix} = 0,$$

or

$$2y \frac{d^2 y}{dx^2} - \left(\frac{dy}{dx} \right)^2 + 2Py \frac{dy}{dx} + 4y^2 Q = e^{-2\int P dx}, \quad (5)$$

which is evidently a first integral of the required equation.

Differentiating and eliminating $e^{-2\int P dx}$, we obtain

$$\frac{d^3 y}{dx^3} + 3P \frac{d^2 y}{dx^2} + \left(\frac{dP}{dx} + 2P^2 + 4Q \right) \frac{dy}{dx} + 2 \left(2PQ + \frac{dQ}{dx} \right) y = 0, \quad (6)$$

the required equation.

From this result we can immediately deduce the following theorem in determinants :—

If y_1, y_2 are functions of x , and $u = y_1^2, v = y_2^2, w = y_1 y_2$, then

$$\begin{vmatrix} u, & v, & w \\ \frac{du}{dx}, & \frac{dv}{dx}, & \frac{dw}{dx} \\ \frac{d^2 u}{dx^2}, & \frac{d^2 v}{dx^2}, & \frac{d^2 w}{dx^2} \end{vmatrix} = A \begin{vmatrix} y_1, & y_2 \\ \frac{dy_1}{dx}, & \frac{dy_2}{dx} \end{vmatrix}^2,$$

A being a constant. This theorem can of course be easily verified directly.

If in equation (6) we put $y = \phi(x)$, we get the condition that two particular solutions of equation (1) should be connected by the relation $y_1 y_2 = \phi(x)$. Thus, if $y_1 y_2 = 1$, we have

$$2PQ + \frac{dQ}{dx} = 0.$$

If we can solve equation (1), we can of course solve equation (6); but it is worth remarking that, conversely, if we can solve equation (6) or its first integral equation (5), we can solve (1); or even if we can find a particular integral of (6) or (5), we can find the complete solution of equation (1); for if $y = \phi(x)$ satisfies (6), then the solution of (1) is

$$y^2 = \phi(x) e^{\int \frac{e^{-\int P dx}}{\phi(x)} dx},$$

as is evident.

It may not be out of place here to consider a certain mode of formation of Algebraic Equations whose roots are functions of the roots of a given equation, as the method has an analogue in the theory of Linear Differential Equations.

Let the given equation be

$$a_0 x^n + n a_1 x^{n-1} + \frac{n \cdot n - 1}{2} a_2 x^{n-2} \dots + a_n = 0.$$

Then, if we express any symmetric function of the roots, which is a product only, in terms of the coefficients, and make the following substitutions in the result, viz.: for a_1 put X_1 ; for a_2 , X_2 ; and for a_p put X_p , where

$$X_1 \equiv a_0 x + a_1$$

$$X_2 \equiv a_0 x^2 + 2a_1 x + a_2$$

$$\dots \dots \dots$$

$$X_p \equiv (a_0, a_1, a_p)(x, 1)^p,$$

and then put the result = 0, we get another equation, of which the roots are certain functions of the roots of the given one. I give a few examples of this method.

(1). Let the roots of the biquadratic equation

$$a_0x^4 + 4a_1x^3 + 6a_2x^2 + 4a_3x + a_4 = 0$$

be $\alpha, \beta, \gamma, \delta$: then if $\alpha\beta = \gamma\delta$, we have

$$a_0a_3^2 - a_1^2a_4 = 0.$$

Hence the equation

$$a_0X_1^3 - X_1^2X_4 = 0$$

is a cubic equation of which the roots are

$$\frac{\gamma\delta - \alpha\beta}{\alpha + \beta - \gamma - \delta}, \quad \frac{\alpha\gamma - \beta\delta}{\beta + \delta - \alpha - \gamma}, \quad \frac{\alpha\delta - \beta\gamma}{\beta + \gamma - \alpha - \delta}.$$

(2). Taking the same equation, the condition that the sum of any pair of roots should vanish may be written

$$4a_1^3 - Ia_2 + J = 0,$$

where

$$I \equiv a_0a_4 - 4a_1a_3 + 3a_2^2$$

$$J \equiv \begin{vmatrix} a_0 & a_1 & a_2 \\ a_1 & a_2 & a_3 \\ a_2 & a_3 & a_4 \end{vmatrix}.$$

Now I and J , being functions of the differences of the roots, are unaffected by the required substitutions; hence we have at once the equation

$$4(a_0x^2 + 2a_1x + a_2)^3 - I(a_0x^3 + 2a_1x + a_2) + J = 0,$$

of which the roots are the arithmetic means of the roots of the biquadratic equation.

(3). If in the quintic equation

$$a_0x^5 + 5a_1x^4 + 10a_2x^3 + 10a_3x^2 + 5a_4x + a_5 = 0$$

two roots are equal in value and opposite in sign, then

$$\begin{vmatrix} a_0 & 10a_2 & 5a_4 & 0 \\ 5a_1 & 10a_3 & a_5 & 0 \\ 0 & a_0 & 10a_2 & 5a_4 \\ 0 & 5a_1 & 10a_3 & a_5 \end{vmatrix} = 0.$$

Hence the equation whose roots are the arithmetic means of each pair of roots of the quintic may be written

$$\begin{vmatrix} a_0 & 10X_2 & 5X_4 & 0 \\ 5X_1 & 10X_3 & X_5 & 0 \\ 0 & a_0 & 10X_2 & 5X_4 \\ 0 & 5X_1 & 10X_3 & X_5 \end{vmatrix} = 0.$$

This method cannot of course be applied in the case of a function of the differences of the roots; but in this case if we make the reciprocal substitutions, viz. :

for a_0 put X_n ,
 a_1 put X_{n-1}
 $\dots \dots \dots$
 a_p put X_{n-p} ,

we get the covariant of which the given function of the differences is the source: thus, $X_{n-1}^2 - X_{n-2}X_n$ is the covariant of which the source is $a_1^2 - a_0a_2$;

$$\begin{vmatrix} X_n & X_{n-1} & X_{n-2} \\ X_{n-1} & X_{n-2} & X_{n-3} \\ X_{n-2} & X_{n-3} & X_{n-4} \end{vmatrix}$$

is the covariant of which the source is

$$\begin{vmatrix} a_0 & a_1 & a_2 \\ a_1 & a_2 & a_3 \\ a_2 & a_3 & a_4 \end{vmatrix}.$$

In this manner all the covariants of a given binary quantic may be formed.

I shall now show by an example that a similar method is available for the solution of analogous problems in the theory of Linear Differential Equations.

Take, as before, equation (1),

$$\frac{d^2y}{dx^2} + P \frac{dy}{dx} + Qy = 0,$$

and the solution,

$$y = C_1y_1 + C_2y_2;$$

and let us, as before, seek the linear equation of which the solution is

$$y = Ay_1^2 + By_2^2 + Cy_1y_2.$$

Now it may be proved independently of previous results that the condition that two particular solutions of the given equation should be connected by the condition

$$y_1y_2 = 1, \text{ is } 2PQ + \frac{dQ}{dx} = 0.$$

In the given equation change y to $u\sqrt{y}$, and the resulting equation in u becomes

$$\frac{d^2u}{dx^2} + P_1 \frac{du}{dx} + Q_1u = 0,$$

where

$$P_1 \equiv P + \frac{1}{y} \frac{dy}{dx},$$

$$Q_1 \equiv Q + \frac{1}{2y} \frac{d^2y}{dx^2} + \frac{P}{2y} \frac{dy}{dx} - \frac{1}{4y^2} \left(\frac{dy}{dx} \right)^2.$$

Hence if we put

$$2P_1Q_1 + \frac{dQ_1}{dx} = 0,$$

multiplying by $2y$ and reducing, we find

$$\frac{d^3y}{dx^3} + 3P \frac{d^2y}{dx^2} + \left(\frac{dP}{dx} + 2P^2 + 4Q \right) \frac{dy}{dx} + 2 \left(2PQ + \frac{dQ}{dx} \right) y = 0,$$

the required equation, of which the solution is

$$y = Ay_1^2 + By_2^2 + Cy_1y_2.$$

Again, since

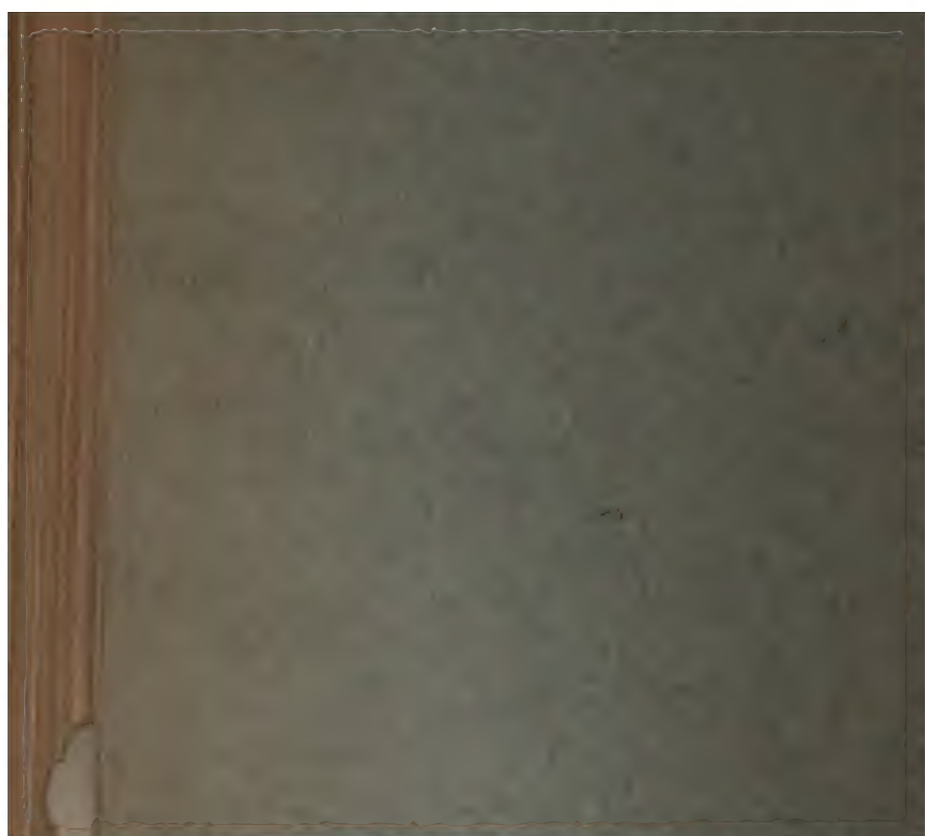
$$Q_1 = e^{-2\int P_1 dx}$$

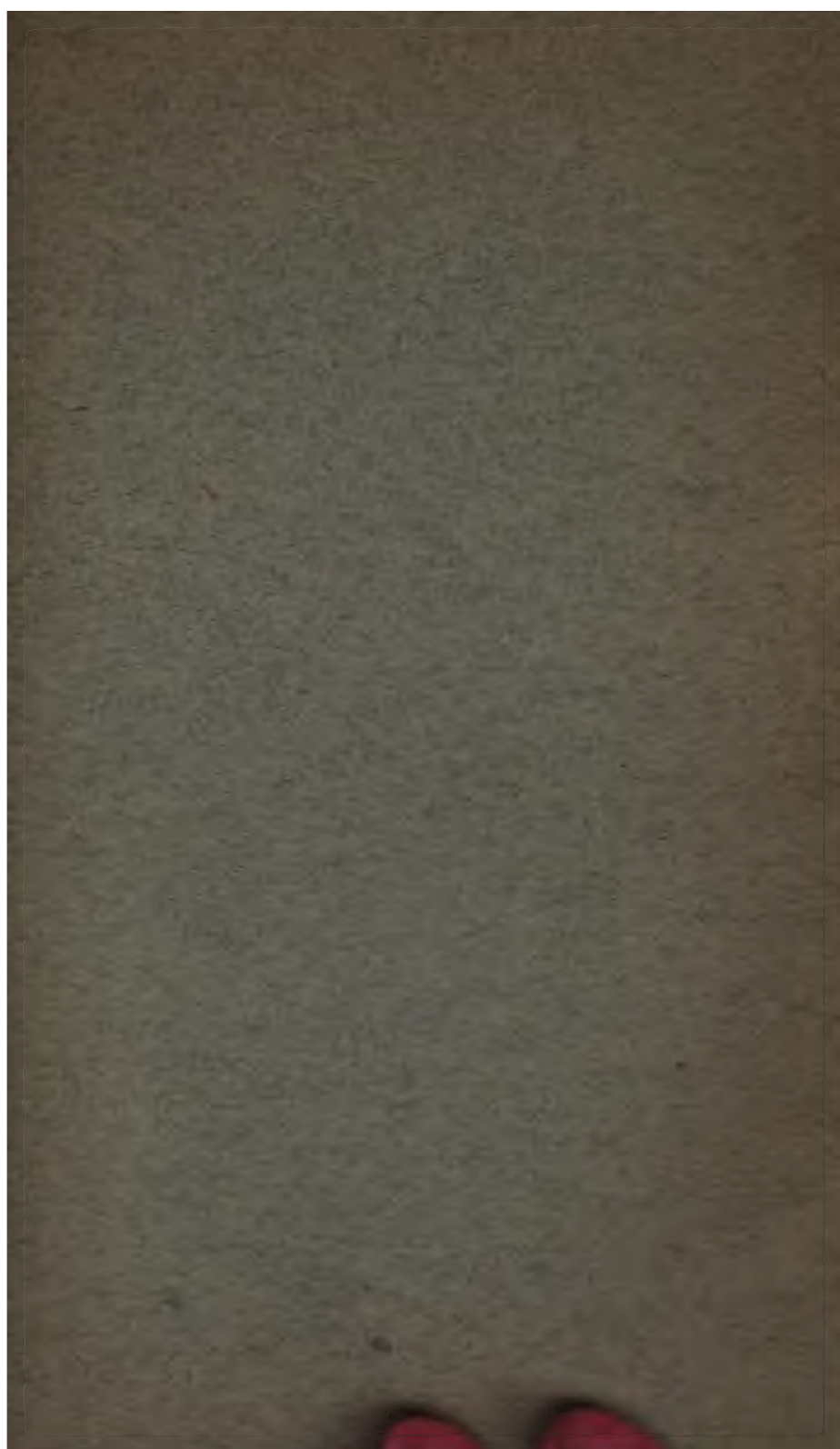
we have

$$2y \frac{d^2 y}{dx^2} + 2Py \frac{dy}{dx} + 4y^2 Q - \left(\frac{dy}{dx} \right)^2 = e^{-2\int P dx}$$

as a first integral of the equation—the same results which I arrived at previously by a different method.

JOHN C. MALET.

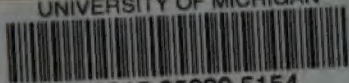






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